



SEQUENCE LISTING

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Gly Tyr Asn Ser Leu Thr Arg Leu Thr Glu Asn Asp Phe Asp Gly Leu
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tggaaaatataat taaatctgca atctatgtat aaatTTTtga tggtttataa atttttttgc 8160
taaaacctac agaaaataag 8180

<210> 9
<211> 897
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature

<222> (1)..(897)
<223> 'n' can be any nucleotide 'a', 'c', 'g' or 't'.

<400> 9
aagaacgttc cttcaatcag gtgaaggctc tcctcagaag atttcctgtc tctgcttatg 60
tcagctgctt gctgatctcc ctcaactgcca tctgcctggg ggtcacccct gggagcaggg 120
tctgtcctcg ccgatgtgcc tgctatgtgc ccacagaggt gcactgtaca tttcgggacc 180
tgacctccat cccagacggg catcccagcc aatgtggAAC gagtcaattt agggataaac 240
agcctcacta gattgacaga aaatgacttt tctggctga gcagactgga gttactcatg 300
ctgcacagca atggcattca cagagtca gacaagacct tctcgggctt gcagtcctt 360
caggtcttaa aaatgagcta taacaaagtc caaataattt agaaggataac tttgtatgga 420
ctcaggagct tgaccgggtt gcacctggat cacaacaaca ttgagttat caaccccgag 480
gcgtttacg gactcacctt gctccgctt gtacatctag aaggaaaccc gctgacaaag 540
ctccatccag acacatttgt ctcttgagc tatctccaga tatttaaaac ctccttcatt 600
aagnacctgt acttgtatga taacttcatt gaccccttc caaaaagaaa tggtctcctc 660
tatgccaaac ctagaaagcc tttacttgca tggaaaccca tggacctgtg actgccattt 720
aaagtggttt tccgagtggc tgcagggaaa cccaggtAAC tatcttggttt gtttggttct 780
ttttttatar kacgtatttt cctcaatttc atttagaatg atatccaaa agtccccat 840
aacctcccccc ccactccctt acctaccat tcccatttt tggccctggc attcccc 897

<210> 10
<211> 2597
<212> PRT
<213> Rattus sp.

<220>
<221> misc_feature
<222> (1)..(2597)
<223> 'x' can be any amino acid

<400> 10

Met Gln Val Arg Gly Arg Glu Val Ser Gly Leu Leu Ile Ser Leu Thr
1 5 10 15

Ala Val Cys Leu Val Val Thr Pro Gly Ser Arg Ala Cys Pro Arg Arg
20 25 30

Cys Ala Cys Tyr Val Pro Thr Glu Val His Cys Thr Phe Arg Tyr Leu
35 40 45

Thr Ser Ile Pro Asp Gly Ile Pro Ala Asn Val Glu Arg Ile Asn Leu
 50 55 60

Gly Tyr Asn Ser Leu Thr Arg Leu Thr Glu Asn Asp Phe Asp Gly Leu
 65 70 75 80

Ser Lys Leu Glu Leu Leu Met Leu His Ser Asn Gly Ile His Arg Val
 85 90 95

Ser Asp Lys Thr Phe Ser Gly Leu Gln Ser Leu Gln Val Leu Lys Met
 100 105 110

Ser Tyr Asn Lys Val Gln Ile Ile Arg Lys Asp Thr Phe Tyr Gly Leu
 115 120 125

Gly Ser Leu Val Arg Leu His Leu Asp His Asn Asn Ile Glu Phe Ile
 130 135 140

Asn Pro Glu Ala Phe Tyr Gly Leu Thr Ser Leu Arg Leu Val His Leu
 145 150 155 160

Glu Gly Asn Arg Leu Thr Lys Leu His Pro Asp Thr Phe Val Ser Leu
 165 170 175

Ser Tyr Leu Gln Ile Phe Lys Thr Ser Phe Ile Lys Tyr Leu Phe Leu
 180 185 190

Ser Asp Asn Phe Leu Thr Ser Leu Pro Lys Glu Met Val Ser Tyr Met
 195 200 205

Pro Asn Leu Glu Ser Leu Tyr Leu His Gly Asn Pro Trp Thr Cys Asp
 210 215 220

Cys His Leu Lys Trp Leu Ser Glu Trp Met Gln Gly Asn Pro Asp Ile
 225 230 235 240

Ile Lys Cys Lys Lys Asp Arg Ser Ser Ser Pro Gln Gln Cys Pro
 245 250 255

Leu Cys Met Asn Pro Arg Ile Ser Lys Gly Arg Pro Phe Ala Met Val
 260 265 270

Pro Ser Gly Ala Phe Leu Cys Thr Lys Pro Thr Ile Asp Pro Ser Leu
 275 280 285

Lys Ser Lys Ser Leu Val Thr Gln Glu Asp Asn Gly Ser Ala Ser Thr
 290 295 300

Ser Pro Gln Asp Phe Ile Glu Pro Phe Gly Ser Leu Ser Leu Asn Met
 305 310 315 320

Thr Xaa Xaa Ser Gly Asn Lys Ala Asp Met Val Cys Ser Ile Gln Lys
 325 330 335

Pro Ser Arg Thr Ser Pro Thr Ala Phe Thr Glu Glu Asn Asp Tyr Ile
 340 345 350

Met Leu Asn Ala Ser Phe Ser Thr Asn Leu Val Cys Ser Val Asp Tyr
355 360 365

Asn His Ile Gln Pro Val Trp Gln Leu Leu Ala Leu Tyr Ser Asp Ser
370 375 380

Pro Leu Ile Leu Glu Arg Lys Pro Gln Leu Thr Glu Thr Pro Ser Leu
385 390 395 400

Ser Ser Arg Tyr Lys Gln Val Ala Leu Arg Pro Glu Asp Ile Phe Thr
405 410 415

Ser Ile Glu Ala Asp Val Arg Ala Asp Pro Phe Trp Phe Gln Gln Glu
420 425 430

Lys Ile Val Leu Gln Leu Asn Arg Thr Ala Thr Thr Leu Ser Thr Leu
435 440 445

Gln Ile Gln Phe Ser Thr Asp Ala Gln Ile Ala Leu Pro Arg Ala Glu
450 455 460

Met Arg Ala Glu Arg Leu Lys Trp Thr Met Ile Leu Met Met Asn Asn
465 470 475 480

Pro Lys Leu Glu Arg Thr Val Leu Val Gly Gly Thr Ile Ala Leu Ser
485 490 495

Cys Pro Gly Lys Gly Asp Pro Ser Pro His Leu Glu Trp Leu Leu Ala
500 505 510

Asp Gly Ser Lys Val Arg Ala Pro Tyr Val Ser Glu Asp Gly Arg Ile
515 520 525

Leu Ile Asp Lys Asn Gly Lys Leu Glu Leu Gln Met Ala Asp Ser Phe
530 535 540

Asp Ala Gly Leu Tyr His Cys Ile Ser Thr Asn Asp Ala Asp Ala Asp
545 550 555 560

Val Leu Thr Tyr Arg Ile Thr Val Val Glu Pro Tyr Gly Glu Ser Thr
565 570 575

His Asp Ser Gly Val Gln His Thr Val Val Thr Gly Glu Thr Leu Asp
580 585 590

Leu Pro Cys Leu Ser Thr Gly Val Pro Asp Ala Ser Ile Ser Trp Ile
595 600 605

Leu Pro Gly Asn Thr Val Phe Ser Gln Pro Ser Arg Asp Arg Gln Ile
610 615 620

Leu Asn Asn Gly Thr Leu Arg Ile Leu Gln Val Thr Pro Lys Asp Gln
625 630 635 640

Gly His Tyr Gln Cys Val Ala Ala Asn Pro Ser Gly Ala Asp Phe Ser
645 650 655

Ser Phe Lys Val Ser Val Gln Lys Lys Gly Gln Arg Met Val Glu His
660 665 670

Asp Arg Glu Ala Gly Gly Ser Gly Leu Gly Glu Pro Asn Ser Ser Val
675 680 685

Ser Leu Lys Gln Pro Ala Ser Leu Lys Leu Ser Ala Ser Ala Leu Thr
690 695 700

Gly Ser Glu Ala Gly Lys Gln Val Ser Gly Val His Arg Lys Asn Lys
705 710 715 720

His Arg Asp Leu Ile His Arg Arg Arg Gly Asp Ser Thr Leu Arg Arg
725 730 735

Phe Arg Glu His Arg Arg Gln Leu Pro Leu Ser Ala Arg Arg Ile Asp
740 745 750

Pro Gln Arg Trp Ala Ala Leu Leu Glu Lys Ala Lys Lys Asn Ser Val
755 760 765

Pro Lys Lys Gln Glu Asn Thr Thr Val Lys Pro Val Pro Leu Ala Val
770 775 780

Pro Leu Val Glu Leu Thr Asp Glu Glu Lys Asp Ala Ser Gly Met Ile
785 790 795 800

Pro Pro Asp Glu Glu Phe Met Val Leu Lys Thr Lys Ala Ser Gly Val
805 810 815

Pro Gly Arg Ser Pro Thr Ala Asp Ser Gly Pro Val Asn His Gly Phe
820 825 830

Met Thr Ser Ile Ala Ser Gly Thr Glu Val Ser Thr Val Asn Pro Gln
835 840 845

Thr Leu Gln Ser Glu His Leu Pro Asp Phe Lys Leu Phe Ser Val Thr
850 855 860

Asn Gly Thr Ala Val Thr Lys Ser Met Asn Pro Ser Ile Ala Ser Lys
865 870 875 880

Ile Glu Asp Thr Thr Asn Gln Asn Pro Ile Ile Ile Phe Pro Ser Val
885 890 895

Ala Glu Ile Arg Asp Ser Ala Gln Ala Gly Arg Ala Ser Ser Gln Ser
900 905 910

Ala His Pro Val Thr Gly Gly Asn Met Ala Thr Tyr Gly His Thr Asn
915 920 925

Thr Tyr Ser Ser Phe Thr Ser Lys Ala Ser Thr Val Leu Gln Pro Ile
930 935 940

Asn Pro Thr Glu Ser Tyr Gly Pro Gln Ile Pro Ile Thr Gly Val Ser
945 950 955 960

Arg Pro Ser Ser Ser Asp Ile Ser Ser His Thr Thr Ala Asp Pro Ser
965 970 975

Phe Ser Ser His Pro Ser Gly Ser His Thr Thr Ala Ser Ser Leu Phe
980 985 990

His Ile Pro Arg Asn Asn Asn Thr Gly Asn Phe Pro Leu Ser Arg His
995 1000 1005

Leu Gly Arg Glu Arg Thr Ile Trp Ser Arg Gly Arg Val Lys Asn
1010 1015 1020

Pro His Arg Thr Pro Val Leu Arg Arg His Arg His Arg Thr Val
1025 1030 1035

Arg Pro Ala Ile Lys Gly Pro Ala Asn Lys Asn Val Ser Gln Val
1040 1045 1050

Pro Ala Thr Glu Tyr Pro Gly Met Cys His Thr Cys Pro Ser Ala
1055 1060 1065

Glu Gly Leu Thr Val Ala Thr Ala Ala Leu Ser Val Pro Ser Ser
1070 1075 1080

Ser His Ser Ala Leu Pro Lys Thr Asn Asn Val Gly Val Ile Ala
1085 1090 1095

Glu Glu Ser Thr Thr Val Val Lys Lys Pro Leu Leu Leu Phe Lys
1100 1105 1110

Asp Lys Gln Asn Val Asp Ile Glu Ile Ile Thr Thr Thr Thr Lys
1115 1120 1125

Tyr Ser Gly Gly Glu Ser Asn His Val Ile Pro Thr Glu Ala Ser
1130 1135 1140

Met Thr Ser Ala Pro Thr Ser Val Ser Leu Gly Lys Ser Pro Val
1145 1150 1155

Asp Asn Ser Gly His Leu Ser Met Pro Gly Thr Ile Gln Thr Gly
1160 1165 1170

Lys Asp Ser Val Glu Thr Thr Pro Leu Pro Ser Pro Leu Ser Thr
1175 1180 1185

Pro Ser Ile Pro Thr Ser Thr Lys Phe Ser Lys Arg Lys Thr Pro
1190 1195 1200

Leu His Gln Ile Phe Val Asn Asn Gln Lys Lys Glu Gly Met Leu
1205 1210 1215

Lys Asn Pro Tyr Gln Phe Gly Leu Gln Lys Asn Pro Ala Ala Lys
1220 1225 1230

Leu Pro Lys Ile Ala Pro Leu Leu Pro Thr Gly Gln Ser Ser Pro
1235 1240 1245

Ser Asp Ser Thr Thr Leu Leu Thr Ser Pro Pro Pro Ala Leu Ser
1250 1255 1260

Thr Thr Met Ala Ala Thr Gln Asn Lys Gly Thr Glu Val Val Ser
1265 1270 1275

Gly Ala Arg Ser Leu Ser Ala Gly Lys Lys Gln Pro Phe Thr Asn
1280 1285 1290

Ser Ser Pro Val Leu Pro Ser Thr Ile Ser Lys Arg Ser Asn Thr
1295 1300 1305

Leu Asn Phe Leu Ser Thr Glu Thr Pro Thr Val Thr Ser Pro Thr
1310 1315 1320

Ala Thr Ala Ser Val Ile Met Ser Glu Thr Gln Arg Thr Arg Ser
1325 1330 1335

Lys Glu Ala Lys Asp Gln Ile Lys Gly Pro Arg Lys Asn Arg Asn
1340 1345 1350

Asn Ala Asn Thr Thr Pro Arg Gln Val Ser Gly Tyr Ser Ala Tyr
1355 1360 1365

Ser Ala Leu Thr Thr Ala Asp Thr Pro Leu Ala Phe Ser His Ser
1370 1375 1380

Pro Arg Gln Asp Asp Gly Gly Asn Val Ser Ala Val Ala Tyr His
1385 1390 1395

Ser Thr Thr Ser Leu Leu Ala Ile Thr Glu Leu Phe Glu Lys Tyr
1400 1405 1410

Thr Gln Thr Leu Gly Asn Thr Thr Ala Leu Glu Thr Thr Leu Leu
1415 1420 1425

Ser Lys Ser Gln Glu Ser Thr Thr Val Lys Arg Ala Ser Asp Thr
1430 1435 1440

Pro Pro Pro Leu Leu Ser Ser Gly Ala Pro Pro Val Pro Thr Pro
1445 1450 1455

Ser Pro Pro Pro Phe Thr Lys Gly Val Val Thr Asp Ser Lys Val
1460 1465 1470

Thr Ser Ala Phe Gln Met Thr Ser Asn Arg Val Val Thr Ile Tyr
1475 1480 1485

Glu Ser Ser Arg His Asn Thr Asp Leu Gln Gln Pro Ser Ala Glu
1490 1495 1500

Ala Ser Pro Asn Pro Glu Ile Ile Thr Gly Thr Thr Asp Ser Pro
1505 1510 1515

Ser Asn Leu Phe Pro Ser Thr Ser Val Pro Ala Leu Arg Val Asp
1520 1525 1530

Lys Pro Gln Asn Ser Lys Trp Lys Pro Ser Pro Trp Pro Glu His
1535 1540 1545

Lys Tyr Gln Leu Lys Ser Tyr Ser Glu Thr Ile Glu Lys Gly Lys
1550 1555 1560

Arg Pro Ala Val Ser Met Ser Pro His Leu Ser Leu Pro Glu Ala
1565 1570 1575

Ser Thr His Ala Ser His Trp Asn Thr Gln Lys His Ala Glu Lys
1580 1585 1590

Ser Val Phe Asp Lys Lys Pro Gly Gln Asn Pro Thr Ser Lys His
1595 1600 1605

Leu Pro Tyr Val Ser Leu Pro Lys Thr Leu Leu Lys Lys Pro Arg
1610 1615 1620

Ile Ile Gly Gly Lys Ala Ala Ser Phe Thr Val Pro Ala Asn Ser
1625 1630 1635

Asp Val Phe Leu Pro Cys Glu Ala Val Gly Asp Pro Leu Pro Ile
1640 1645 1650

Ile His Trp Thr Arg Val Ser Ser Gly Xaa Glu Ile Ser Gln Gly
1655 1660 1665

Thr Gln Lys Ser Arg Phe His Val Leu Pro Asn Gly Thr Leu Ser
1670 1675 1680

Ile Gln Arg Val Ser Ile Gln Asp Arg Gly Gln Tyr Leu Cys Ser
1685 1690 1695

Ala Phe Asn Pro Leu Gly Val Asp His Phe His Val Ser Leu Ser
1700 1705 1710

Val Val Phe Tyr Pro Ala Arg Ile Leu Asp Arg His Val Lys Glu
1715 1720 1725

Ile Thr Val His Phe Gly Ser Thr Val Glu Leu Lys Cys Arg Val
1730 1735 1740

Glu Gly Met Pro Arg Pro Thr Val Ser Trp Ile Leu Ala Asn Gln
1745 1750 1755

Thr Val Val Ser Glu Thr Ala Lys Gly Ser Arg Lys Val Trp Val
1760 1765 1770

Thr Pro Asp Gly Thr Leu Ile Ile Tyr Asn Leu Ser Leu Tyr Asp
1775 1780 1785

Arg Gly Phe Tyr Lys Cys Val Ala Ser Asn Pro Ser Gly Gln Asp
1790 1795 1800

Ser Leu Leu Val Lys Ile Gln Val Ile Thr Ala Pro Pro Val Ile
1805 1810 1815

Ile	Glu	Gln	Lys	Arg	Gln	Ala	Ile	Val	Gly	Val	Leu	Gly	Gly	Ser
1820							1825				1830			
Leu	Lys	Leu	Pro	Cys	Thr	Ala	Lys	Gly	Thr	Pro	Gln	Pro	Ser	Val
1835							1840				1845			
His	Trp	Val	Leu	Tyr	Asp	Gly	Thr	Glu	Leu	Lys	Pro	Leu	Gln	Leu
1850							1855				1860			
Thr	His	Ser	Arg	Phe	Phe	Leu	Tyr	Pro	Asn	Gly	Thr	Leu	Tyr	Ile
1865							1870				1875			
Arg	Ser	Ile	Ala	Pro	Ser	Val	Arg	Gly	Thr	Tyr	Glu	Cys	Ile	Ala
1880							1885				1890			
Thr	Ser	Ser	Ser	Gly	Ser	Glu	Arg	Arg	Val	Val	Ile	Leu	Thr	Val
1895							1900				1905			
Glu	Glu	Gly	Glu	Thr	Ile	Pro	Arg	Ile	Glu	Thr	Ala	Ser	Gln	Lys
1910							1915				1920			
Trp	Thr	Glu	Val	Asn	Leu	Gly	Glu	Lys	Leu	Leu	Leu	Asn	Cys	Ser
1925							1930				1935			
Ala	Thr	Gly	Asp	Pro	Lys	Pro	Arg	Ile	Ile	Trp	Arg	Leu	Pro	Ser
1940							1945				1950			
Lys	Ala	Val	Ile	Asp	Gln	Trp	His	Arg	Met	Gly	Ser	Arg	Ile	His
1955							1960				1965			
Val	Tyr	Pro	Asn	Gly	Ser	Leu	Val	Val	Gly	Ser	Val	Thr	Glu	Lys
1970							1975				1980			
Asp	Ala	Gly	Asp	Tyr	Leu	Cys	Val	Ala	Arg	Asn	Lys	Met	Gly	Asp
1985							1990				1995			
Asp	Leu	Val	Leu	Met	His	Val	Arg	Leu	Arg	Leu	Thr	Pro	Ala	Lys
2000							2005				2010			
Ile	Glu	Gln	Lys	Gln	Tyr	Phe	Lys	Lys	Gln	Val	Leu	His	Gly	Lys
2015							2020				2025			
Asp	Phe	Gln	Val	Asp	Cys	Lys	Ala	Ser	Gly	Ser	Pro	Val	Pro	Glu
2030							2035				2040			
Val	Ser	Trp	Ser	Leu	Pro	Asp	Gly	Thr	Val	Leu	Asn	Asn	Val	Ala
2045							2050				2055			
Gln	Ala	Asp	Asp	Ser	Gly	Tyr	Arg	Thr	Lys	Arg	Tyr	Thr	Leu	Phe
2060							2065				2070			
His	Asn	Gly	Thr	Leu	Tyr	Phe	Asn	Asn	Val	Gly	Met	Ala	Glu	Glu
2075							2080				2085			
Gly	Asp	Tyr	Ile	Cys	Ser	Ala	Gln	Asn	Thr	Leu	Gly	Lys	Asp	Glu
2090							2095				2100			

Met Lys Val His Leu Thr Val Leu Thr Ala Ile Pro Arg Ile Arg
2105 2110 2115

Gln Ser Tyr Lys Thr Thr Met Arg Leu Arg Ala Gly Glu Thr Ala
2120 2125 2130

Val Leu Asp Cys Glu Val Thr Gly Glu Pro Lys Pro Asn Val Phe
2135 2140 2145

Trp Leu Leu Pro Ser Asn Asn Val Ile Ser Phe Ser Asn Asp Arg
2150 2155 2160

Phe Thr Phe His Ala Asn Arg Thr Leu Ser Ile His Lys Val Lys
2165 2170 2175

Pro Leu Asp Ser Gly Asp Tyr Val Cys Val Ala Gln Asn Pro Ser
2180 2185 2190

Gly Asp Asp Thr Lys Thr Tyr Lys Leu Asp Ile Val Ser Lys Pro
2195 2200 2205

Pro Leu Ile Asn Gly Leu Tyr Ala Asn Lys Thr Val Ile Lys Ala
2210 2215 2220

Thr Ala Ile Arg His Ser Lys Lys Tyr Phe Asp Cys Arg Ala Asp
2225 2230 2235

Gly Ile Pro Ser Ser Gln Val Thr Trp Ile Met Pro Gly Asn Ile
2240 2245 2250

Phe Leu Pro Ala Pro Tyr Phe Gly Ser Arg Val Thr Val His Pro
2255 2260 2265

Asn Gly Thr Leu Glu Met Arg Asn Ile Arg Leu Ser Asp Ser Ala
2270 2275 2280

Asp Phe Thr Cys Val Val Arg Ser Glu Gly Gly Glu Ser Val Leu
2285 2290 2295

Val Val Gln Leu Glu Val Leu Glu Met Leu Arg Arg Pro Thr Phe
2300 2305 2310

Arg Asn Pro Phe Asn Glu Lys Val Ile Ala Gln Ala Gly Lys Pro
2315 2320 2325

Val Ala Leu Asn Cys Ser Val Asp Gly Asn Pro Pro Pro Glu Ile
2330 2335 2340

Thr Trp Ile Leu Pro Asp Gly Thr Gln Phe Ala Asn Arg Pro His
2345 2350 2355

Asn Ser Pro Tyr Leu Met Ala Gly Asn Gly Ser Leu Ile Leu Tyr
2360 2365 2370

Lys Ala Thr Arg Asn Lys Ser Gly Lys Tyr Arg Cys Ala Ala Arg
2375 2380 2385

Asn Lys Val Gly Tyr Ile Glu Lys Leu Ile Leu Leu Glu Ile Gly
2390 2395 2400

Gln Lys Pro Val Ile Leu Thr Tyr Glu Pro Gly Met Val Lys Ser
2405 2410 2415

Val Ser Gly Glu Pro Leu Ser Leu His Cys Val Ser Asp Gly Ile
2420 2425 2430

Pro Lys Pro Asn Val Lys Trp Thr Thr Pro Gly Gly His Val Ile
2435 2440 2445

Asp Arg Pro Gln Val Asp Gly Lys Tyr Ile Leu His Glu Asn Gly
2450 2455 2460

Thr Leu Val Ile Lys Ala Thr Thr Ala His Asp Gln Gly Asn Tyr
2465 2470 2475

Ile Cys Arg Ala Gln Asn Ser Val Gly Gln Ala Val Ile Ser Val
2480 2485 2490

Ser Val Met Val Val Ala Tyr Pro Pro Arg Ile Ile Asn Tyr Leu
2495 2500 2505

Pro Arg Asn Met Leu Arg Arg Thr Gly Glu Ala Met Gln Leu His
2510 2515 2520

Cys Val Ala Leu Gly Ile Pro Lys Pro Lys Val Thr Trp Glu Thr
2525 2530 2535

Pro Arg His Ser Leu Leu Ser Lys Ala Thr Ala Arg Lys Pro His
2540 2545 2550

Arg Ser Glu Met Leu His Pro Gln Gly Thr Leu Val Ile Gln Asn
2555 2560 2565

Leu Gln Thr Ser Asp Ser Gly Val Tyr Lys Cys Arg Ala Gln Asn
2570 2575 2580

Leu Leu Gly Thr Asp Tyr Ala Thr Thr Tyr Ile Gln Val Leu
2585 2590 2595

<210> 11
<211> 2586
<212> PRT
<213> Homo sapiens

<220>
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<222> (1)..(2586)
<223> 'x' can be any amino acid

<400> 11

Met Lys Val Lys Gly Arg Gly Ile Thr Cys Leu Leu Val Ser Phe Ala

1

5

10

15

Val Ile Cys Leu Val Ala Thr Pro Gly Gly Lys Ala Cys Pro Arg Arg
20 25 30

Cys Ala Cys Tyr Met Pro Thr Glu Val His Cys Thr Phe Arg Tyr Leu
35 40 45

Thr Ser Ile Pro Asp Ser Ile Pro Pro Asn Val Glu Arg Ile Asn Leu
50 55 60

Gly Tyr Asn Ser Leu Val Arg Leu Met Glu Thr Asp Phe Ser Gly Leu
65 70 80

Thr Lys Leu Glu Leu Leu Met Leu His Ser Asn Gly Ile His Thr Ile
85 90 95

Pro Asp Lys Thr Phe Ser Asp Leu Gln Ala Leu Gln Val Leu Lys Met
100 105 110

Ser Tyr Asn Lys Val Arg Lys Leu Gln Lys Asp Thr Phe Tyr Gly Leu
115 120 125

Arg Ser Leu Thr Arg Leu His Met Asp His Asn Asn Ile Glu Phe Ile
130 135 140

Asn Pro Glu Val Phe Tyr Gly Leu Asn Phe Leu Arg Leu Val His Leu
145 150 155 160

Glu Gly Asn Gln Leu Thr Lys Leu His Pro Asp Thr Phe Val Ser Leu
165 170 175

Ser Tyr Leu Gln Ile Phe Lys Ile Ser Phe Ile Lys Phe Leu Tyr Leu
180 185 190

Ser Asp Asn Phe Leu Thr Ser Leu Pro Gln Glu Met Val Ser Tyr Met
195 200 205

Pro Asp Leu Asp Ser Leu Tyr Leu His Gly Asn Pro Trp Thr Cys Asp
210 215 220

Cys His Leu Lys Trp Leu Ser Asp Trp Ile Gln Pro Asp Val Ile Lys
225 230 235 240

Cys Lys Lys Asp Arg Ser Pro Ser Ser Ala Gln Gln Cys Pro Leu Cys
245 250 255

Met Asn Pro Arg Thr Ser Lys Gly Lys Pro Leu Ala Met Val Ser Ala
260 265 270

Ala Ala Phe Gln Cys Ala Lys Pro Thr Ile Asp Ser Ser Leu Lys Ser
275 280 285

Lys Ser Leu Thr Ile Leu Glu Asp Ser Ser Ser Ala Phe Ile Ser Pro
290 295 300

Gln Gly Phe Met Ala Pro Phe Gly Ser Leu Thr Leu Asn Met Thr Asp

305	310	315	320
Gln Ser Gly Asn Glu Ala Asn Met Val Cys Ser Ile Gln Lys Pro Ser			
325	330		335
Arg Thr Ser Pro Ile Ala Phe Thr Glu Glu Asn Asp Tyr Ile Val Leu			
340	345		350
Asn Thr Ser Phe Ser Thr Phe Leu Val Cys Asn Ile Asp Tyr Gly His			
355	360		365
Ile Gln Pro Val Trp Gln Ile Leu Ala Leu Tyr Ser Asp Ser Pro Leu			
370	375		380
Ile Leu Glu Arg Ser His Leu Leu Ser Glu Thr Pro Gln Leu Tyr Tyr			
385	390		395
Lys Tyr Lys Gln Val Ala Pro Lys Pro Glu Asp Ile Phe Thr Asn Ile			
405	410		415
Glu Ala Asp Leu Arg Ala Asp Pro Ser Trp Leu Met Gln Asp Gln Ile			
420	425		430
Ser Leu Gln Leu Asn Arg Thr Ala Thr Thr Phe Ser Thr Leu Gln Ile			
435	440		445
Gln Tyr Ser Ser Asp Ala Gln Ile Thr Leu Pro Arg Ala Glu Met Arg			
450	455		460
Pro Val Lys His Lys Trp Thr Met Ile Ser Arg Asp Asn Asn Thr Lys			
465	470		475
Leu Glu His Thr Val Leu Val Gly Gly Thr Val Gly Leu Asn Cys Pro			
485	490		495
Gly Gln Gly Asp Pro Thr Pro His Val Asp Trp Leu Leu Ala Asp Gly			
500	505		510
Ser Lys Val Arg Ala Pro Tyr Val Ser Glu Asp Gly Arg Ile Leu Ile			
515	520		525
Asp Lys Ser Gly Lys Leu Glu Leu Gln Met Ala Asp Ser Phe Asp Thr			
530	535		540
Gly Val Tyr His Cys Ile Ser Ser Asn Tyr Asp Asp Ala Asp Ile Leu			
545	550		555
Thr Tyr Arg Ile Thr Val Val Glu Pro Leu Val Glu Ala Tyr Gln Glu			
565	570		575
Asn Gly Ile His His Thr Val Phe Ile Gly Glu Thr Leu Asp Leu Pro			
580	585		590
Cys His Ser Thr Gly Ile Pro Asp Ala Ser Ile Ser Trp Val Ile Pro			
595	600		605
Gly Asn Asn Val Leu Tyr Gln Ser Ser Arg Asp Lys Lys Val Leu Asn			

610	615	620
Asn Gly Thr Leu Arg Ile Leu Gln Val Thr Pro Lys Asp Gln Gly Tyr		
625	630	635
Tyr Arg Cys Val Ala Ala Asn Pro Ser Gly Val Asp Phe Leu Ile Phe		
645	650	655
Gln Val Ser Val Lys Met Lys Gly Gln Arg Pro Leu Glu His Asp Gly		
660	665	670
Glu Thr Glu Gly Ser Gly Leu Asp Glu Ser Asn Pro Ile Ala His Leu		
675	680	685
Lys Glu Pro Pro Gly Ala Gln Leu Arg Thr Ser Ala Leu Met Glu Ala		
690	695	700
Glu Val Gly Lys His Thr Ser Ser Thr Ser Lys Arg His Asn Tyr Arg		
705	710	715
Glu Leu Thr Leu Gln Arg Arg Gly Asp Ser Thr His Arg Arg Phe Arg		
725	730	735
Glu Asn Arg Arg His Phe Pro Pro Ser Ala Arg Arg Ile Asp Pro Gln		
740	745	750
His Trp Ala Ala Leu Leu Glu Lys Ala Lys Lys Asn Ala Met Pro Asp		
755	760	765
Lys Arg Glu Asn Thr Thr Val Ser Pro Pro Val Val Thr Gln Leu		
770	775	780
Pro Asn Ile Pro Gly Glu Glu Asp Asp Ser Ser Gly Met Leu Ala Leu		
785	790	800
His Glu Glu Phe Met Val Pro Ala Thr Lys Ala Leu Asn Leu Pro Ala		
805	810	815
Arg Thr Val Thr Ala Asp Ser Arg Thr Ile Ser Asp Ser Pro Met Thr		
820	825	830
Asn Ile Asn Tyr Gly Thr Glu Phe Ser Pro Val Val Asn Ser Gln Ile		
835	840	845
Leu Pro Pro Glu Glu Pro Thr Asp Phe Lys Leu Ser Thr Ala Ile Lys		
850	855	860
Thr Thr Ala Met Ser Lys Asn Ile Asn Pro Thr Met Ser Ser Gln Ile		
865	870	875
Gln Gly Thr Thr Asn Gln His Ser Ser Thr Val Phe Pro Leu Leu Leu		
885	890	895
Gly Ala Thr Glu Phe Gln Asp Ser Asp Gln Met Gly Arg Gly Arg Glu		
900	905	910
His Phe Gln Ser Arg Pro Pro Ile Thr Val Arg Thr Met Ile Lys Asp		

915 920 925

Val Asn Val Lys Met Leu Ser Ser Thr Thr Asn Lys Leu Leu Leu Glu
930 935 940

Ser Val Asn Thr Thr Asn Ser His Gln Thr Ser Val Arg Glu Val Ser
945 950 955 960

Glu Pro Arg His Asn His Phe Tyr Ser His Thr Thr Gln Ile Leu Ser
965 970 975

Thr Ser Thr Phe Pro Ser Asp Pro His Thr Ala Ala His Ser Gln Phe
980 985 990

Pro Ile Pro Arg Asn Ser Thr Val Asn Ile Pro Leu Phe Arg Arg Phe
995 1000 1005

Gly Arg Gln Arg Lys Ile Gly Gly Arg Gly Arg Ile Ile Ser Pro
1010 1015 1020

Tyr Arg Thr Pro Val Leu Arg Arg His Arg Tyr Ser Ile Phe Arg
1025 1030 1035

Ser Thr Thr Arg Gly Ser Ser Glu Lys Ser Thr Thr Ala Phe Ser
1040 1045 1050

Ala Thr Val Leu Asn Val Thr Cys Leu Ser Cys Leu Pro Arg Glu
1055 1060 1065

Arg Leu Thr Thr Ala Thr Ala Ala Leu Ser Phe Pro Ser Ala Ala
1070 1075 1080

Pro Ile Thr Phe Pro Lys Ala Asp Ile Ala Arg Val Pro Ser Glu
1085 1090 1095

Glu Ser Thr Thr Leu Val Gln Asn Pro Leu Leu Leu Leu Glu Asn
1100 1105 1110

Lys Pro Ser Val Glu Lys Thr Thr Pro Thr Ile Lys Tyr Phe Arg
1115 1120 1125

Thr Glu Ile Ser Gln Val Thr Pro Thr Gly Ala Val Met Thr Tyr
1130 1135 1140

Ala Pro Thr Ser Ile Pro Met Glu Lys Thr His Lys Val Asn Ala
1145 1150 1155

Ser Tyr Pro Arg Val Ser Ser Thr Asn Glu Ala Lys Arg Asp Ser
1160 1165 1170

Val Ile Thr Ser Ser Leu Ser Gly Ala Ile Thr Lys Pro Pro Met
1175 1180 1185

Thr Ile Ile Ala Ile Thr Arg Phe Ser Arg Arg Lys Ile Pro Trp
1190 1195 1200

Gln Gln Asn Phe Val Asn Asn His Asn Pro Lys Gly Arg Leu Arg

1205	1210	1215
Asn Gln His Lys Val Ser Leu Gln Lys Ser Thr Ala Val Met Leu		
1220	1225	1230
Pro Lys Thr Ser Pro Ala Leu Pro Gln Arg Gln Ser Ser Pro Phe		
1235	1240	1245
His Phe Thr Thr Leu Ser Thr Ser Val Met Gln Ile Pro Ser Asn		
1250	1255	1260
Thr Leu Thr Thr Ala His His Thr Thr Thr Lys Thr His Asn Pro		
1265	1270	1275
Gly Ser Leu Pro Thr Lys Lys Glu Leu Pro Phe Pro Pro Leu Asn		
1280	1285	1290
Pro Met Leu Pro Ser Ile Ile Ser Lys Asp Ser Ser Thr Lys Ser		
1295	1300	1305
Ile Ile Ser Thr Gln Thr Ala Ile Pro Ala Thr Thr Pro Thr Phe		
1310	1315	1320
Pro Ala Ser Val Ile Thr Tyr Glu Thr Gln Thr Glu Arg Ser Arg		
1325	1330	1335
Ala Gln Thr Ile Gln Arg Glu Gln Glu Pro Gln Lys Lys Asn Arg		
1340	1345	1350
Thr Asp Pro Asn Ile Ser Pro Asp Gln Ser Ser Gly Phe Thr Thr		
1355	1360	1365
Pro Thr Ala Met Thr Pro Pro Ala Leu Ala Phe Thr His Ser Pro		
1370	1375	1380
Pro Glu Asn Thr Thr Gly Ile Ser Ser Thr Ile Ser Phe His Ser		
1385	1390	1395
Arg Thr Leu Asn Leu Thr Asp Val Ile Glu Glu Leu Ala Gln Ala		
1400	1405	1410
Ser Thr Gln Thr Leu Lys Ser Thr Ile Ala Ser Glu Thr Thr Leu		
1415	1420	1425
Ser Ser Lys Ser His Gln Ser Thr Thr Thr Arg Lys Ala Ser Leu		
1430	1435	1440
Asp Thr Pro Ile Pro Pro Phe Leu Ser Ser Ser Ala Thr Leu Met		
1445	1450	1455
Pro Val Pro Ile Ser Pro Pro Phe Thr Gln Arg Ala Val Thr Asp		
1460	1465	1470
Thr Arg Gly Asp Ser His Phe Arg Leu Met Thr Asn Thr Val Val		
1475	1480	1485
Lys Leu His Glu Ser Ser Arg His Asn Leu Gln Met Pro Ser Ser		

1490	1495	1500
Gln Leu Glu Pro Leu Thr Ser	Ser Thr Ser Asn Leu	Leu His Ser
1505	1510	1515
Thr Pro Met Pro Ala Leu Thr	Thr Val Lys Ser Gln	Asn Ser Lys
1520	1525	1530
Leu Thr Pro Ser Pro Trp Ala	Glu Tyr Gln Phe Trp	His Lys Pro
1535	1540	1545
Tyr Ser Asp Ile Ala Glu Lys	Gly Lys Lys Pro Glu	Val Ser Met
1550	1555	1560
Leu Ala Thr Thr Gly Leu Ser	Glu Ala Thr Thr Leu	Val Ser Asp
1565	1570	1575
Trp Asp Gly Gln Lys Asn Thr	Lys Lys Ser Asp Phe	Asp Lys Lys
1580	1585	1590
Pro Val Gln Glu Ala Thr Thr	Ser Lys Leu Leu Pro	Phe Asp Ser
1595	1600	1605
Leu Ser Arg Tyr Ile Phe Glu	Lys Pro Arg Ile Val	Gly Gly Lys
1610	1615	1620
Ala Ala Ser Phe Thr Ile Pro	Ala Asn Ser Asp Ala	Phe Leu Pro
1625	1630	1635
Cys Glu Ala Val Gly Asn Pro	Leu Pro Thr Ile His	Trp Thr Arg
1640	1645	1650
Val Ser Gly Leu Asp Leu Ser	Arg Gly Asn Gln Asn	Ser Arg Val
1655	1660	1665
Gln Val Leu Pro Asn Gly Thr	Leu Ser Ile Gln Arg	Val Glu Ile
1670	1675	1680
Gln Asp Arg Gly Gln Tyr Leu	Cys Ser Ala Ser Asn	Leu Phe Gly
1685	1690	1695
Thr Asp His Leu His Val Thr	Leu Ser Val Val Ser	Tyr Pro Pro
1700	1705	1710
Arg Ile Leu Glu Arg Arg Thr	Lys Glu Ile Thr Val	His Ser Gly
1715	1720	1725
Ser Thr Val Glu Leu Lys Cys	Arg Ala Glu Gly Arg	Pro Ser Pro
1730	1735	1740
Thr Val Thr Trp Ile Leu Ala	Asn Gln Thr Val Val	Ser Glu Ser
1745	1750	1755
Ser Gln Gly Ser Arg Gln Ala	Val Val Thr Val Asp	Gly Thr Leu
1760	1765	1770
Val Leu His Asn Leu Ser Ile	Tyr Asp Arg Gly Phe	Tyr Lys Cys

1775	1780	1785
Val Ala Ser Asn Pro Gly Gly	Gln Asp Ser Leu Leu	Val Lys Ile
1790	1795	1800
Gln Val Ile Ala Ala Pro Pro	Val Ile Leu Glu Gln	Arg Arg Gln
1805	1810	1815
Val Ile Val Gly Thr Trp Gly	Glu Ser Leu Lys Leu	Pro Cys Thr
1820	1825	1830
Ala Lys Gly Thr Pro Gln Pro	Ser Val Tyr Trp Val	Leu Ser Asp
1835	1840	1845
Gly Thr Glu Val Lys Pro Leu	Gln Phe Thr Asn Ser	Lys Leu Phe
1850	1855	1860
Leu Phe Ser Asn Gly Thr Leu	Tyr Ile Arg Asn Leu	Ala Ser Ser
1865	1870	1875
Asp Arg Gly Thr Tyr Glu Cys	Ile Ala Thr Ser Ser	Thr Gly Ser
1880	1885	1890
Glu Arg Arg Val Val Met Leu	Thr Met Glu Glu Arg	Val Thr Ser
1895	1900	1905
Pro Arg Ile Glu Ala Ala Ser	Gln Lys Arg Thr Glu	Val Asn Phe
1910	1915	1920
Gly Asp Lys Leu Leu Leu Asn	Cys Ser Ala Thr Gly	Glu Pro Lys
1925	1930	1935
Pro Gln Ile Met Trp Arg Leu	Pro Ser Lys Ala Val	Val Asp Gln
1940	1945	1950
Gly Ser Trp Ile His Val Tyr	Pro Asn Gly Ser Leu	Phe Ile Gly
1955	1960	1965
Ser Val Thr Glu Lys Asp Ser	Gly Val Tyr Leu Cys	Val Ala Arg
1970	1975	1980
Asn Lys Met Gly Asp Asp Leu	Ile Leu Met His Val	Ser Leu Arg
1985	1990	1995
Leu Lys Pro Ala Lys Ile Asp	His Lys Gln Tyr Phe	Arg Lys Gln
2000	2005	2010
Val Leu His Gly Lys Asp Phe	Gln Val Asp Cys Lys	Ala Ser Gly
2015	2020	2025
Ser Pro Val Pro Glu Ile Ser	Trp Ser Leu Pro Asp	Gly Thr Met
2030	2035	2040
Ile Asn Asn Ala Met Gln Ala	Asp Asp Ser Gly His	Arg Thr Arg
2045	2050	2055
Arg Tyr Thr Leu Phe Asn Asn	Gly Thr Leu Tyr Phe	Asn Lys Val

2060 2065 2070
Gly Val Ala Glu Glu Gly Asp Tyr Thr Cys Tyr Ala Gln Asn Thr
2075 2080 2085
Leu Gly Lys Asp Glu Met Lys Val His Leu Thr Val Ile Thr Ala
2090 2095 2100
Ala Pro Arg Ile Arg Gln Ser Asn Lys Thr Asn Lys Arg Ile Lys
2105 2110 2115
Ala Gly Asp Thr Ala Val Leu Asp Cys Glu Val Thr Gly Asp Pro
2120 2125 2130
Lys Pro Lys Ile Phe Trp Leu Leu Pro Ser Asn Asp Met Ile Ser
2135 2140 2145
Phe Ser Ile Asp Arg Tyr Thr Phe His Ala Asn Gly Ser Leu Thr
2150 2155 2160
Ile Asn Lys Val Lys Leu Leu Asp Ser Gly Glu Tyr Val Cys Val
2165 2170 2175
Ala Arg Asn Pro Ser Gly Asp Asp Thr Lys Met Tyr Lys Leu Asp
2180 2185 2190
Val Val Ser Lys Pro Pro Leu Ile Asn Gly Leu Tyr Thr Asn Arg
2195 2200 2205
Thr Val Ile Lys Ala Thr Ala Val Arg His Ser Lys Lys His Phe
2210 2215 2220
Asp Cys Arg Ala Glu Gly Thr Pro Ser Pro Glu Val Met Trp Ile
2225 2230 2235
Met Pro Asp Asn Ile Phe Leu Thr Ala Pro Tyr Tyr Gly Ser Arg
2240 2245 2250
Ile Thr Val His Lys Asn Gly Thr Leu Glu Ile Arg Asn Val Arg
2255 2260 2265
Leu Ser Asp Ser Ala Asp Phe Ile Cys Val Ala Arg Asn Glu Gly
2270 2275 2280
Gly Glu Ser Val Leu Val Val Gln Leu Glu Val Leu Glu Met Leu
2285 2290 2295
Arg Arg Pro Thr Phe Arg Asn Pro Phe Asn Glu Lys Ile Val Ala
2300 2305 2310
Gln Leu Gly Lys Ser Thr Ala Leu Asn Cys Ser Val Asp Gly Asn
2315 2320 2325
Pro Pro Pro Glu Ile Ile Trp Ile Leu Pro Asn Gly Thr Arg Phe
2330 2335 2340
Ser Asn Gly Pro Gln Ser Tyr Gln Tyr Leu Ile Ala Ser Asn Gly

2345	2350	2355
Ser Phe Ile Ile Ser Lys Thr	Thr Arg Glu Asp Ala	Gly Lys Tyr
2360	2365	2370
Arg Cys Ala Ala Arg Asn Lys	Val Gly Tyr Ile Glu	Lys Leu Val
2375	2380	2385
Ile Leu Glu Ile Gly Gln Lys	Pro Val Ile Leu Thr	Tyr Ala Pro
2390	2395	2400
Gly Thr Val Lys Gly Ile Ser	Gly Glu Ser Leu Ser	Leu His Cys
2405	2410	2415
Val Ser Asp Gly Ile Pro Lys	Pro Asn Ile Lys Trp	Thr Met Pro
2420	2425	2430
Ser Gly Tyr Val Val Asp Arg	Pro Gln Ile Asn Gly	Lys Tyr Ile
2435	2440	2445
Leu His Asp Asn Gly Thr Leu	Val Ile Lys Glu Ala	Thr Ala Tyr
2450	2455	2460
Asp Arg Gly Asn Tyr Ile Cys	Lys Ala Gln Asn Ser	Val Gly His
2465	2470	2475
Thr Leu Ile Thr Val Pro Val	Met Ile Val Ala Tyr	Pro Pro Arg
2480	2485	2490
Ile Thr Asn Arg Pro Pro Arg	Ser Ile Val Thr Arg	Thr Gly Ala
2495	2500	2505
Ala Phe Gln Leu His Cys Val	Ala Leu Gly Val Pro	Lys Pro Glu
2510	2515	2520
Ile Thr Trp Glu Met Pro Asp	His Ser Leu Leu Ser	Thr Ala Ser
2525	2530	2535
Lys Glu Arg Thr His Gly Ser	Glu Gln Leu His Leu	Gln Gly Thr
2540	2545	2550
Leu Val Ile Gln Asn Pro Gln	Thr Ser Asp Ser Gly	Ile Tyr Lys
2555	2560	2565
Cys Thr Ala Lys Asn Pro Leu	Gly Ser Asp Tyr Ala	Ala Thr Tyr
2570	2575	2580
Ile Gln Val		
2585		
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<213> Mus musculus		
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<221> misc_feature		

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<223> 'x' can be any amino acid

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Met Gln Lys Arg Gly Arg Glu Val Ser Cys Leu Leu Ile Ser Leu Thr
1 5 10 15

Ala Ile Cys Leu Val Val Thr Pro Gly Ser Arg Val Cys Pro Arg Arg
20 25 30

Cys Ala Cys Tyr Val Pro Thr Glu Val His Cys Thr Phe Arg Asp Leu
35 40 45

Thr Ser Ile Pro Asp Gly Pro Ala Asn Val Glu Arg Val Asn Leu Gly
50 55 60

Tyr Asn Ser Leu Thr Arg Leu Thr Glu Asn Asp Phe Ser Gly Leu Ser
65 70 75 80

Arg Leu Glu Leu Leu Met Leu His Ser Asn Gly Ile His Arg Val Ser
85 90 95

Asp Lys Thr Phe Ser Gly Leu Gln Ser Leu Gln Val Leu Lys Met Ser
100 105 110

Tyr Asn Lys Val Gln Ile Ile Glu Lys Asp Thr Leu Tyr Gly Leu Arg
115 120 125

Ser Leu Thr Arg Leu His Leu Asp His Asn Asn Ile Glu Phe Ile Asn
130 135 140

Pro Glu Ala Phe Tyr Gly Leu Thr Leu Arg Leu Val His Leu Glu
145 150 155 160

Gly Asn Arg Leu Thr Lys Leu His Pro Asp Thr Phe Val Ser Leu Ser
165 170 175

Tyr Leu Gln Ile Phe Lys Thr Ser Phe Ile Lys Xaa Leu Tyr Leu Tyr
180 185 190

Asp Asn Phe Thr Ser Leu Pro Lys Glu Met Val Ser Ser Met Pro Asn
195 200 205

Leu Glu Ser Leu Tyr Leu His Gly Asn Pro Trp Thr Cys Asp Cys His
210 215 220

Leu Lys Trp Leu Ser Glu Trp Met Gln Gly Asn Pro
225 230 235

<210> 13

<211> 2597

<212> PRT

<213> Rattus sp.

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<221> misc_feature
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<223> 'x' can be any amino acid

<400> 13

Met Gln Val Arg Gly Arg Glu Val Ser Gly Leu Leu Ile Ser Leu Thr
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Ala Val Cys Leu Val Val Thr Pro Gly Ser Arg Ala Cys Pro Arg Arg
20 25 30

Cys Ala Cys Tyr Val Pro Thr Glu Val His Cys Thr Phe Arg Tyr Leu
35 40 45

Thr Ser Ile Pro Asp Gly Ile Pro Ala Asn Val Glu Arg Ile Asn Leu
50 55 60

Gly Tyr Asn Ser Leu Thr Arg Leu Thr Glu Asn Asp Phe Asp Gly Leu
65 70 75 80

Ser Lys Leu Glu Leu Leu Met Leu His Ser Asn Gly Ile His Arg Val
85 90 95

Ser Asp Lys Thr Phe Ser Gly Leu Gln Ser Leu Gln Val Leu Lys Met
100 105 110

Ser Tyr Asn Lys Val Gln Ile Ile Arg Lys Asp Thr Phe Tyr Gly Leu
115 120 125

Gly Ser Leu Val Arg Leu His Leu Asp His Asn Asn Ile Glu Phe Ile
130 135 140

Asn Pro Glu Ala Phe Tyr Gly Leu Thr Ser Leu Arg Leu Val His Leu
145 150 155 160

Glu Gly Asn Arg Leu Thr Lys Leu His Pro Asp Thr Phe Val Ser Leu
165 170 175

Ser Tyr Leu Gln Ile Phe Lys Thr Ser Phe Ile Lys Tyr Leu Phe Leu
180 185 190

Ser Asp Asn Phe Leu Thr Ser Leu Pro Lys Glu Met Val Ser Tyr Met
195 200 205

Pro Asn Leu Glu Ser Leu Tyr Leu His Gly Asn Pro Trp Thr Cys Asp
210 215 220

Cys His Leu Lys Trp Leu Ser Glu Trp Met Gln Gly Asn Pro Asp Ile
225 230 235 240

Ile Lys Cys Lys Lys Asp Arg Ser Ser Ser Pro Gln Gln Cys Pro
245 250 255

Leu Cys Met Asn Pro Arg Ile Ser Lys Gly Arg Pro Phe Ala Met Val
260 265 270

Pro Ser Gly Ala Phe Leu Cys Thr Lys Pro Thr Ile Asp Pro Ser Leu
275 280 285

Lys Ser Lys Ser Leu Val Thr Gln Glu Asp Asn Gly Ser Ala Ser Thr
290 295 300

Ser Pro Gln Asp Phe Ile Glu Pro Phe Gly Ser Leu Ser Leu Asn Met
305 310 315 320

Thr Xaa Xaa Ser Gly Asn Lys Ala Asp Met Val Cys Ser Ile Gln Lys
325 330 335

Pro Ser Arg Thr Ser Pro Thr Ala Phe Thr Glu Glu Asn Asp Tyr Ile
340 345 350

Met Leu Asn Ala Ser Phe Ser Thr Asn Leu Val Cys Ser Val Asp Tyr
355 360 365

Asn His Ile Gln Pro Val Trp Gln Leu Leu Ala Leu Tyr Ser Asp Ser
370 375 380

Pro Leu Ile Leu Glu Arg Lys Pro Gln Leu Thr Glu Thr Pro Ser Leu
385 390 395 400

Ser Ser Arg Tyr Lys Gln Val Ala Leu Arg Pro Glu Asp Ile Phe Thr
405 410 415

Ser Ile Glu Ala Asp Val Arg Ala Asp Pro Phe Trp Phe Gln Gln Glu
420 425 430

Lys Ile Val Leu Gln Leu Asn Arg Thr Ala Thr Thr Leu Ser Thr Leu
435 440 445

Gln Ile Gln Phe Ser Thr Asp Ala Gln Ile Ala Leu Pro Arg Ala Glu
450 455 460

Met Arg Ala Glu Arg Leu Lys Trp Thr Met Ile Leu Met Met Asn Asn
465 470 475 480

Pro Lys Leu Glu Arg Thr Val Leu Val Gly Gly Thr Ile Ala Leu Ser
485 490 495

Cys Pro Gly Lys Gly Asp Pro Ser Pro His Leu Glu Trp Leu Leu Ala
500 505 510

Asp Gly Ser Lys Val Arg Ala Pro Tyr Val Ser Glu Asp Gly Arg Ile
515 520 525

Leu Ile Asp Lys Asn Gly Lys Leu Glu Leu Gln Met Ala Asp Ser Phe
530 535 540

Asp Ala Gly Leu Tyr His Cys Ile Ser Thr Asn Asp Ala Asp Ala Asp
545 550 555 560

Val Leu Thr Tyr Arg Ile Thr Val Val Glu Pro Tyr Gly Glu Ser Thr
565 570 575

His Asp Ser Gly Val Gln His Thr Val Val Thr Gly Glu Thr Leu Asp
580 585 590

Leu Pro Cys Leu Ser Thr Gly Val Pro Asp Ala Ser Ile Ser Trp Ile
595 600 605

Leu Pro Gly Asn Thr Val Phe Ser Gln Pro Ser Arg Asp Arg Gln Ile
610 615 620

Leu Asn Asn Gly Thr Leu Arg Ile Leu Gln Val Thr Pro Lys Asp Gln
625 630 635 640

Gly His Tyr Gln Cys Val Ala Ala Asn Pro Ser Gly Ala Asp Phe Ser
645 650 655

Ser Phe Lys Val Ser Val Gln Lys Lys Gly Gln Arg Met Val Glu His
660 665 670

Asp Arg Glu Ala Gly Gly Ser Gly Leu Gly Glu Pro Asn Ser Ser Val
675 680 685

Ser Leu Lys Gln Pro Ala Ser Leu Lys Leu Ser Ala Ser Ala Leu Thr
690 695 700

Gly Ser Glu Ala Gly Lys Gln Val Ser Gly Val His Arg Lys Asn Lys
705 710 715 720

His Arg Asp Leu Ile His Arg Arg Arg Gly Asp Ser Thr Leu Arg Arg
725 730 735

Phe Arg Glu His Arg Arg Gln Leu Pro Leu Ser Ala Arg Arg Ile Asp
740 745 750

Pro Gln Arg Trp Ala Ala Leu Leu Glu Lys Ala Lys Lys Asn Ser Val
755 760 765

Pro Lys Lys Gln Glu Asn Thr Thr Val Lys Pro Val Pro Leu Ala Val
770 775 780

Pro Leu Val Glu Leu Thr Asp Glu Glu Lys Asp Ala Ser Gly Met Ile
785 790 795 800

Pro Pro Asp Glu Glu Phe Met Val Leu Lys Thr Lys Ala Ser Gly Val
805 810 815

Pro Gly Arg Ser Pro Thr Ala Asp Ser Gly Pro Val Asn His Gly Phe
820 825 830

Met Thr Ser Ile Ala Ser Gly Thr Glu Val Ser Thr Val Asn Pro Gln
835 840 845

Thr Leu Gln Ser Glu His Leu Pro Asp Phe Lys Leu Phe Ser Val Thr
850 855 860

Asn Gly Thr Ala Val Thr Lys Ser Met Asn Pro Ser Ile Ala Ser Lys
865 870 875 880

Ile Glu Asp Thr Thr Asn Gln Asn Pro Ile Ile Ile Phe Pro Ser Val
885 890 895

Ala Glu Ile Arg Asp Ser Ala Gln Ala Gly Arg Ala Ser Ser Gln Ser
900 905 910

Ala His Pro Val Thr Gly Gly Asn Met Ala Thr Tyr Gly His Thr Asn
915 920 925

Thr Tyr Ser Ser Phe Thr Ser Lys Ala Ser Thr Val Leu Gln Pro Ile
930 935 940

Asn Pro Thr Glu Ser Tyr Gly Pro Gln Ile Pro Ile Thr Gly Val Ser
945 950 955 960

Arg Pro Ser Ser Ser Asp Ile Ser Ser His Thr Thr Ala Asp Pro Ser
965 970 975

Phe Ser Ser His Pro Ser Gly Ser His Thr Thr Ala Ser Ser Leu Phe
980 985 990

His Ile Pro Arg Asn Asn Asn Thr Gly Asn Phe Pro Leu Ser Arg His
995 1000 1005

Leu Gly Arg Glu Arg Thr Ile Trp Ser Arg Gly Arg Val Lys Asn
1010 1015 1020

Pro His Arg Thr Pro Val Leu Arg Arg His Arg His Arg Thr Val
1025 1030 1035

Arg Pro Ala Ile Lys Gly Pro Ala Asn Lys Asn Val Ser Gln Val
1040 1045 1050

Pro Ala Thr Glu Tyr Pro Gly Met Cys His Thr Cys Pro Ser Ala
1055 1060 1065

Glu Gly Leu Thr Val Ala Thr Ala Ala Leu Ser Val Pro Ser Ser
1070 1075 1080

Ser His Ser Ala Leu Pro Lys Thr Asn Asn Val Gly Val Ile Ala
1085 1090 1095

Glu Glu Ser Thr Thr Val Val Lys Lys Pro Leu Leu Leu Phe Lys
1100 1105 1110

Asp Lys Gln Asn Val Asp Ile Glu Ile Ile Thr Thr Thr Thr Lys
1115 1120 1125

Tyr Ser Gly Gly Glu Ser Asn His Val Ile Pro Thr Glu Ala Ser
1130 1135 1140

Met Thr Ser Ala Pro Thr Ser Val Ser Leu Gly Lys Ser Pro Val
1145 1150 1155

Asp Asn Ser Gly His Leu Ser Met Pro Gly Thr Ile Gln Thr Gly
1160 1165 1170

Lys Asp Ser Val Glu Thr Thr Pro Leu Pro Ser Pro Leu Ser Thr
1175 1180 1185

Pro Ser Ile Pro Thr Ser Thr Lys Phe Ser Lys Arg Lys Thr Pro
1190 1195 1200

Leu His Gln Ile Phe Val Asn Asn Gln Lys Lys Glu Gly Met Leu
1205 1210 1215

Lys Asn Pro Tyr Gln Phe Gly Leu Gln Lys Asn Pro Ala Ala Lys
1220 1225 1230

Leu Pro Lys Ile Ala Pro Leu Leu Pro Thr Gly Gln Ser Ser Pro
1235 1240 1245

Ser Asp Ser Thr Thr Leu Leu Thr Ser Pro Pro Pro Ala Leu Ser
1250 1255 1260

Thr Thr Met Ala Ala Thr Gln Asn Lys Gly Thr Glu Val Val Ser
1265 1270 1275

Gly Ala Arg Ser Leu Ser Ala Gly Lys Lys Gln Pro Phe Thr Asn
1280 1285 1290

Ser Ser Pro Val Leu Pro Ser Thr Ile Ser Lys Arg Ser Asn Thr
1295 1300 1305

Leu Asn Phe Leu Ser Thr Glu Thr Pro Thr Val Thr Ser Pro Thr
1310 1315 1320

Ala Thr Ala Ser Val Ile Met Ser Glu Thr Gln Arg Thr Arg Ser
1325 1330 1335

Lys Glu Ala Lys Asp Gln Ile Lys Gly Pro Arg Lys Asn Arg Asn
1340 1345 1350

Asn Ala Asn Thr Thr Pro Arg Gln Val Ser Gly Tyr Ser Ala Tyr
1355 1360 1365

Ser Ala Leu Thr Thr Ala Asp Thr Pro Leu Ala Phe Ser His Ser
1370 1375 1380

Pro Arg Gln Asp Asp Gly Gly Asn Val Ser Ala Val Ala Tyr His
1385 1390 1395

Ser Thr Thr Ser Leu Leu Ala Ile Thr Glu Leu Phe Glu Lys Tyr
1400 1405 1410

Thr Gln Thr Leu Gly Asn Thr Thr Ala Leu Glu Thr Thr Leu Leu
1415 1420 1425

Ser Lys Ser Gln Glu Ser Thr Thr Val Lys Arg Ala Ser Asp Thr
1430 1435 1440

Pro Pro Pro Leu Leu Ser Ser Gly Ala Pro Pro Val Pro Thr Pro
1445 1450 1455

Ser	Pro	Pro	Pro	Phe	Thr	Lys	Gly	Val	Val	Thr	Asp	Ser	Lys	Val
1460						1465					1470			
Thr	Ser	Ala	Phe	Gln	Met	Thr	Ser	Asn	Arg	Val	Val	Thr	Ile	Tyr
1475						1480					1485			
Glu	Ser	Ser	Arg	His	Asn	Thr	Asp	Leu	Gln	Gln	Pro	Ser	Ala	Glu
1490						1495					1500			
Ala	Ser	Pro	Asn	Pro	Glu	Ile	Ile	Thr	Gly	Thr	Thr	Asp	Ser	Pro
1505						1510					1515			
Ser	Asn	Leu	Phe	Pro	Ser	Thr	Ser	Val	Pro	Ala	Leu	Arg	Val	Asp
1520						1525					1530			
Lys	Pro	Gln	Asn	Ser	Lys	Trp	Lys	Pro	Ser	Pro	Trp	Pro	Glu	His
1535						1540					1545			
Lys	Tyr	Gln	Leu	Lys	Ser	Tyr	Ser	Glu	Thr	Ile	Glu	Lys	Gly	Lys
1550						1555					1560			
Arg	Pro	Ala	Val	Ser	Met	Ser	Pro	His	Leu	Ser	Leu	Pro	Glu	Ala
1565						1570					1575			
Ser	Thr	His	Ala	Ser	His	Trp	Asn	Thr	Gln	Lys	His	Ala	Glu	Lys
1580						1585					1590			
Ser	Val	Phe	Asp	Lys	Lys	Pro	Gly	Gln	Asn	Pro	Thr	Ser	Lys	His
1595						1600					1605			
Leu	Pro	Tyr	Val	Ser	Leu	Pro	Lys	Thr	Leu	Leu	Lys	Lys	Pro	Arg
1610						1615					1620			
Ile	Ile	Gly	Gly	Lys	Ala	Ala	Ser	Phe	Thr	Val	Pro	Ala	Asn	Ser
1625						1630					1635			
Asp	Val	Phe	Leu	Pro	Cys	Glu	Ala	Val	Gly	Asp	Pro	Leu	Pro	Ile
1640						1645					1650			
Ile	His	Trp	Thr	Arg	Val	Ser	Ser	Gly	Xaa	Glu	Ile	Ser	Gln	Gly
1655						1660					1665			
Thr	Gln	Lys	Ser	Arg	Phe	His	Val	Leu	Pro	Asn	Gly	Thr	Leu	Ser
1670						1675					1680			
Ile	Gln	Arg	Val	Ser	Ile	Gln	Asp	Arg	Gly	Gln	Tyr	Leu	Cys	Ser
1685						1690					1695			
Ala	Phe	Asn	Pro	Leu	Gly	Val	Asp	His	Phe	His	Val	Ser	Leu	Ser
1700						1705					1710			
Val	Val	Phe	Tyr	Pro	Ala	Arg	Ile	Leu	Asp	Arg	His	Val	Lys	Glu
1715						1720					1725			
Ile	Thr	Val	His	Phe	Gly	Ser	Thr	Val	Glu	Leu	Lys	Cys	Arg	Val
1730						1735					1740			

Glu Gly Met Pro Arg Pro Thr Val Ser Trp Ile Leu Ala Asn Gln
 1745 1750 1755
 Thr Val Val Ser Glu Thr Ala Lys Gly Ser Arg Lys Val Trp Val
 1760 1765 1770
 Thr Pro Asp Gly Thr Leu Ile Ile Tyr Asn Leu Ser Leu Tyr Asp
 1775 1780 1785
 Arg Gly Phe Tyr Lys Cys Val Ala Ser Asn Pro Ser Gly Gln Asp
 1790 1795 1800
 Ser Leu Leu Val Lys Ile Gln Val Ile Thr Ala Pro Pro Val Ile
 1805 1810 1815
 Ile Glu Gln Lys Arg Gln Ala Ile Val Gly Val Leu Gly Gly Ser
 1820 1825 1830
 Leu Lys Leu Pro Cys Thr Ala Lys Gly Thr Pro Gln Pro Ser Val
 1835 1840 1845
 His Trp Val Leu Tyr Asp Gly Thr Glu Leu Lys Pro Leu Gln Leu
 1850 1855 1860
 Thr His Ser Arg Phe Phe Leu Tyr Pro Asn Gly Thr Leu Tyr Ile
 1865 1870 1875
 Arg Ser Ile Ala Pro Ser Val Arg Gly Thr Tyr Glu Cys Ile Ala
 1880 1885 1890
 Thr Ser Ser Ser Gly Ser Glu Arg Arg Val Val Ile Leu Thr Val
 1895 1900 1905
 Glu Glu Gly Glu Thr Ile Pro Arg Ile Glu Thr Ala Ser Gln Lys
 1910 1915 1920
 Trp Thr Glu Val Asn Leu Gly Glu Lys Leu Leu Asn Cys Ser
 1925 1930 1935
 Ala Thr Gly Asp Pro Lys Pro Arg Ile Ile Trp Arg Leu Pro Ser
 1940 1945 1950
 Lys Ala Val Ile Asp Gln Trp His Arg Met Gly Ser Arg Ile His
 1955 1960 1965
 Val Tyr Pro Asn Gly Ser Leu Val Val Gly Ser Val Thr Glu Lys
 1970 1975 1980
 Asp Ala Gly Asp Tyr Leu Cys Val Ala Arg Asn Lys Met Gly Asp
 1985 1990 1995
 Asp Leu Val Leu Met His Val Arg Leu Arg Leu Thr Pro Ala Lys
 2000 2005 2010
 Ile Glu Gln Lys Gln Tyr Phe Lys Lys Gln Val Leu His Gly Lys
 2015 2020 2025

Asp Phe Gln Val Asp Cys Lys Ala Ser Gly Ser Pro Val Pro Glu
2030 2035 2040

Val Ser Trp Ser Leu Pro Asp Gly Thr Val Leu Asn Asn Val Ala
2045 2050 2055

Gln Ala Asp Asp Ser Gly Tyr Arg Thr Lys Arg Tyr Thr Leu Phe
2060 2065 2070

His Asn Gly Thr Leu Tyr Phe Asn Asn Val Gly Met Ala Glu Glu
2075 2080 2085

Gly Asp Tyr Ile Cys Ser Ala Gln Asn Thr Leu Gly Lys Asp Glu
2090 2095 2100

Met Lys Val His Leu Thr Val Leu Thr Ala Ile Pro Arg Ile Arg
2105 2110 2115

Gln Ser Tyr Lys Thr Thr Met Arg Leu Arg Ala Gly Glu Thr Ala
2120 2125 2130

Val Leu Asp Cys Glu Val Thr Gly Glu Pro Lys Pro Asn Val Phe
2135 2140 2145

Trp Leu Leu Pro Ser Asn Asn Val Ile Ser Phe Ser Asn Asp Arg
2150 2155 2160

Phe Thr Phe His Ala Asn Arg Thr Leu Ser Ile His Lys Val Lys
2165 2170 2175

Pro Leu Asp Ser Gly Asp Tyr Val Cys Val Ala Gln Asn Pro Ser
2180 2185 2190

Gly Asp Asp Thr Lys Thr Tyr Lys Leu Asp Ile Val Ser Lys Pro
2195 2200 2205

Pro Leu Ile Asn Gly Leu Tyr Ala Asn Lys Thr Val Ile Lys Ala
2210 2215 2220

Thr Ala Ile Arg His Ser Lys Lys Tyr Phe Asp Cys Arg Ala Asp
2225 2230 2235

Gly Ile Pro Ser Ser Gln Val Thr Trp Ile Met Pro Gly Asn Ile
2240 2245 2250

Phe Leu Pro Ala Pro Tyr Phe Gly Ser Arg Val Thr Val His Pro
2255 2260 2265

Asn Gly Thr Leu Glu Met Arg Asn Ile Arg Leu Ser Asp Ser Ala
2270 2275 2280

Asp Phe Thr Cys Val Val Arg Ser Glu Gly Gly Glu Ser Val Leu
2285 2290 2295

Val Val Gln Leu Glu Val Leu Glu Met Leu Arg Arg Pro Thr Phe
2300 2305 2310

Arg Asn Pro Phe Asn Glu Lys Val Ile Ala Gln Ala Gly Lys Pro
 2315 2320 2325
 Val Ala Leu Asn Cys Ser Val Asp Gly Asn Pro Pro Pro Glu Ile
 2330 2335 2340
 Thr Trp Ile Leu Pro Asp Gly Thr Gln Phe Ala Asn Arg Pro His
 2345 2350 2355
 Asn Ser Pro Tyr Leu Met Ala Gly Asn Gly Ser Leu Ile Leu Tyr
 2360 2365 2370
 Lys Ala Thr Arg Asn Lys Ser Gly Lys Tyr Arg Cys Ala Ala Arg
 2375 2380 2385
 Asn Lys Val Gly Tyr Ile Glu Lys Leu Ile Leu Leu Glu Ile Gly
 2390 2395 2400
 Gin Lys Pro Val Ile Leu Thr Tyr Glu Pro Gly Met Val Lys Ser
 2405 2410 2415
 Val Ser Gly Glu Pro Leu Ser Leu His Cys Val Ser Asp Gly Ile
 2420 2425 2430
 Pro Lys Pro Asn Val Lys Trp Thr Thr Pro Gly Gly His Val Ile
 2435 2440 2445
 Asp Arg Pro Gln Val Asp Gly Lys Tyr Ile Leu His Glu Asn Gly
 2450 2455 2460
 Thr Leu Val Ile Lys Ala Thr Thr Ala His Asp Gln Gly Asn Tyr
 2465 2470 2475
 Ile Cys Arg Ala Gln Asn Ser Val Gly Gln Ala Val Ile Ser Val
 2480 2485 2490
 Ser Val Met Val Val Ala Tyr Pro Pro Arg Ile Ile Asn Tyr Leu
 2495 2500 2505
 Pro Arg Asn Met Leu Arg Arg Thr Gly Glu Ala Met Gln Leu His
 2510 2515 2520
 Cys Val Ala Leu Gly Ile Pro Lys Pro Lys Val Thr Trp Glu Thr
 2525 2530 2535
 Pro Arg His Ser Leu Leu Ser Lys Ala Thr Ala Arg Lys Pro His
 2540 2545 2550
 Arg Ser Glu Met Leu His Pro Gln Gly Thr Leu Val Ile Gln Asn
 2555 2560 2565
 Leu Gln Thr Ser Asp Ser Gly Val Tyr Lys Cys Arg Ala Gln Asn
 2570 2575 2580
 Leu Leu Gly Thr Asp Tyr Ala Thr Thr Tyr Ile Gln Val Leu
 2585 2590 2595

<210> 14
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 <212> PRT
 <213> Homo sapiens

<400> 14

Met	Lys	Val	Lys	Gly	Arg	Gly	Ile	Thr	Cys	Leu	Leu	Val	Ser	Phe	Ala
1				5					10				15		
Val	Ile	Cys	Leu	Val	Ala	Thr	Pro	Gly	Gly	Lys	Ala	Cys	Pro	Arg	Arg
			20				25						30		
Cys	Ala	Cys	Tyr	Met	Pro	Thr	Glu	Val	His	Cys	Thr	Phe	Arg	Tyr	Leu
			35				40				45				
Thr	Ser	Ile	Pro	Asp	Ser	Ile	Pro	Pro	Asn	Val	Glu	Arg	Ile	Asn	Leu
			50				55				60				
Gly	Tyr	Asn	Ser	Leu	Val	Arg	Leu	Met	Glu	Thr	Asp	Phe	Ser	Gly	Leu
			65				70			75			80		
Thr	Lys	Leu	Glu	Leu	Leu	Met	Leu	His	Ser	Asn	Gly	Ile	His	Thr	Ile
			85				90				95				
Pro	Asp	Lys	Thr	Phe	Ser	Asp	Leu	Gln	Ala	Leu	Gln	Val	Leu	Lys	Met
			100				105					110			
Ser	Tyr	Asn	Lys	Val	Arg	Lys	Leu	Gln	Lys	Asp	Thr	Phe	Tyr	Gly	Leu
			115				120				125				
Arg	Ser	Leu	Thr	Arg	Leu	His	Met	Asp	His	Asn	Asn	Ile	Glu	Phe	Ile
			130				135				140				
Asn	Pro	Glu	Val	Phe	Tyr	Gly	Leu	Asn	Phe	Leu	Arg	Leu	Val	His	Leu
			145				150			155			160		
Glu	Gly	Asn	Gln	Leu	Thr	Lys	Leu	His	Pro	Asp	Thr	Phe	Val	Ser	Leu
			165				170				175				
Ser	Tyr	Leu	Gln	Ile	Phe	Lys	Ile	Ser	Phe	Ile	Lys	Phe	Leu	Tyr	Leu
			180				185				190				
Ser	Asp	Asn	Phe	Leu	Thr	Ser	Leu	Pro	Gln	Glu	Met	Val	Ser	Tyr	Met
			195				200				205				
Pro	Asp	Leu	Asp	Ser	Leu	Tyr	Leu	His	Gly	Asn	Pro	Trp	Thr	Cys	Asp
			210				215				220				
Cys	His	Leu	Lys	Trp	Leu	Ser	Asp	Trp	Ile	Gln	Pro	Asp	Val	Ile	Lys
			225				230			235			240		
Cys	Lys	Lys	Asp	Arg	Ser	Pro	Ser	Ser	Ala	Gln	Gln	Cys	Pro	Leu	Cys
			245				250					255			
Met	Asn	Pro	Arg	Thr	Ser	Lys	Gly	Lys	Pro	Leu	Ala	Met	Val	Ser	Ala

260

265

270

Ala Ala Phe Gln Cys Ala Lys Pro Thr Ile Asp Ser Ser Leu Lys Ser
275 280 285

Lys Ser Leu Thr Ile Leu Glu Asp Ser Ser Ser Ala Phe Ile Ser Pro
290 295 300

Gln Gly Phe Met Ala Pro Phe Gly Ser Leu Thr Leu Asn Met Thr Asp
 305 310 315 320

Gln Ser Gly Asn Glu Ala Asn Met Val Cys Ser Ile Gln Lys Pro Ser
 325 330 335

Arg Thr Ser Pro Ile Ala Phe Thr Glu Glu Asn Asp Tyr Ile Val Leu
 340 345 350

Asn Thr Ser Phe Ser Thr Phe Leu Val Cys Asn Ile Asp Tyr Gly His
 355 360 365

Ile Gln Pro Val Trp Gln Ile Leu Ala Leu Tyr Ser Asp Ser Pro Leu
 370 375 380

Ile Leu Glu Arg Ser His Leu Leu Ser Glu Thr Pro Gln Leu Tyr Tyr
385 390 395 400

Lys Tyr Lys Gln Val Ala Pro Lys Pro Glu Asp Ile Phe Thr Asn Ile
405 410 415

Glu Ala Asp Leu Arg Ala Asp Pro Ser Trp Leu Met Gln Asp Gln Ile
 420 425 430

Ser Leu Gln Leu Asn Arg Thr Ala Thr Thr Phe Ser Thr Leu Gln Ile
435 440 445

Gln Tyr Ser Ser Asp Ala Gln Ile Thr Leu Pro Arg Ala Glu Met Arg
450 455 460

Pro Val Lys His Lys Trp Thr Met Ile Ser Arg Asp Asn Asn Thr Lys
465 470 475 480

Leu Glu His Thr Val Leu Val Gly Gly Thr Val Gly Leu Asn Cys Pro
485 490 495

Gly Gln Gly Asp Pro Thr Pro His Val Asp Trp Leu Leu Ala Asp Gly
500 505 510

Ser Lys Val Arg Ala Pro Tyr Val Ser Glu Asp Gly Arg Ile Leu Ile
515 520 525

Asp Lys Ser Gly Lys Leu Glu Leu Gln Met Ala Asp Ser Phe Asp Thr
530 535 540

Gly Val Tyr His Cys Ile Ser Ser Asn Tyr Asp Asp Ala Asp Ile Leu
 545 550 555 560

Thr Tyr Arg Ile Thr Val Val Glu Pro Leu Val Glu Ala Tyr Gln Glu

565

570

575

Asn Gly Ile His His Thr Val Phe Ile Gly Glu Thr Leu Asp Leu Pro
 580 585 590

Cys His Ser Thr Gly Ile Pro Asp Ala Ser Ile Ser Trp Val Ile Pro
 595 600 605

Gly Asn Asn Val Leu Tyr Gln Ser Ser Arg Asp Lys Lys Val Leu Asn
 610 615 620

Asn Gly Thr Leu Arg Ile Leu Gln Val Thr Pro Lys Asp Gln Gly Tyr
 625 630 635 640

Tyr Arg Cys Val Ala Ala Asn Pro Ser Gly Val Asp Phe Leu Ile Phe
 645 650 655

Gln Val Ser Val Lys Met Lys Gly Gln Arg Pro Leu Glu His Asp Gly
 660 665 670

Glu Thr Glu Gly Ser Gly Leu Asp Glu Ser Asn Pro Ile Ala His Leu
 675 680 685

Lys Glu Pro Pro Gly Ala Gln Leu Arg Thr Ser Ala Leu Met Glu Ala
 690 695 700

Glu Val Gly Lys His Thr Ser Ser Thr Ser Lys Arg His Asn Tyr Arg
 705 710 715 720

Glu Leu Thr Leu Gln Arg Arg Gly Asp Ser Thr His Arg Arg Phe Arg
 725 730 735

Glu Asn Arg Arg His Phe Pro Pro Ser Ala Arg Arg Ile Asp Pro Gln
 740 745 750

His Trp Ala Ala Leu Leu Glu Lys Ala Lys Lys Asn Ala Met Pro Asp
 755 760 765

Lys Arg Glu Asn Thr Thr Val Ser Pro Pro Pro Val Val Thr Gln Leu
 770 775 780

Pro Asn Ile Pro Gly Glu Glu Asp Asp Ser Ser Gly Met Leu Ala Leu
 785 790 795 800

His Glu Glu Phe Met Val Pro Ala Thr Lys Ala Leu Asn Leu Pro Ala
 805 810 815

Arg Thr Val Thr Ala Asp Ser Arg Thr Ile Ser Asp Ser Pro Met Thr
 820 825 830

Asn Ile Asn Tyr Gly Thr Glu Phe Ser Pro Val Val Asn Ser Gln Ile
 835 840 845

Leu Pro Pro Glu Glu Pro Thr Asp Phe Lys Leu Ser Thr Ala Ile Lys
 850 855 860

Thr Thr Ala Met Ser Lys Asn Ile Asn Pro Thr Met Ser Ser Gln Ile

865	870	875	880
Gln Gly Thr Thr Asn Gln His Ser Ser Thr Val Phe Pro Leu Leu Leu			
885	890	895	
Gly Ala Thr Glu Phe Gln Asp Ser Asp Gln Met Gly Arg Gly Arg Glu			
900	905	910	
His Phe Gln Ser Arg Pro Pro Ile Thr Val Arg Thr Met Ile Lys Asp			
915	920	925	
Val Asn Val Lys Met Leu Ser Ser Thr Thr Asn Lys Leu Leu Leu Glu			
930	935	940	
Ser Val Asn Thr Thr Asn Ser His Gln Thr Ser Val Arg Glu Val Ser			
945	950	955	960
Glu Pro Arg His Asn His Phe Tyr Ser His Thr Thr Gln Ile Leu Ser			
965	970	975	
Thr Ser Thr Phe Pro Ser Asp Pro His Thr Ala Ala His Ser Gln Phe			
980	985	990	
Pro Ile Pro Arg Asn Ser Thr Val Asn Ile Pro Leu Phe Arg Arg Phe			
995	1000	1005	
Gly Arg Gln Arg Lys Ile Gly Gly Arg Gly Arg Ile Ile Ser Pro			
1010	1015	1020	
Tyr Arg Thr Pro Val Leu Arg Arg His Arg Tyr Ser Ile Phe Arg			
1025	1030	1035	
Ser Thr Thr Arg Gly Ser Ser Glu Lys Ser Thr Thr Ala Phe Ser			
1040	1045	1050	
Ala Thr Val Leu Asn Val Thr Cys Leu Ser Cys Leu Pro Arg Glu			
1055	1060	1065	
Arg Leu Thr Thr Ala Thr Ala Ala Leu Ser Phe Pro Ser Ala Ala			
1070	1075	1080	
Pro Ile Thr Phe Pro Lys Ala Asp Ile Ala Arg Val Pro Ser Glu			
1085	1090	1095	
Glu Ser Thr Thr Leu Val Gln Asn Pro Leu Leu Leu Leu Glu Asn			
1100	1105	1110	
Lys Pro Ser Val Glu Lys Thr Thr Pro Thr Ile Lys Tyr Phe Arg			
1115	1120	1125	
Thr Glu Ile Ser Gln Val Thr Pro Thr Gly Ala Val Met Thr Tyr			
1130	1135	1140	
Ala Pro Thr Ser Ile Pro Met Glu Lys Thr His Lys Val Asn Ala			
1145	1150	1155	
Ser Tyr Pro Arg Val Ser Ser Thr Asn Glu Ala Lys Arg Asp Ser			

1160	1165	1170
Val Ile Thr Ser Ser Leu Ser Gly Ala Ile Thr Lys Pro Pro Met		
1175	1180	1185
Thr Ile Ile Ala Ile Thr Arg Phe Ser Arg Arg Lys Ile Pro Trp		
1190	1195	1200
Gln Gln Asn Phe Val Asn Asn His Asn Pro Lys Gly Arg Leu Arg		
1205	1210	1215
Asn Gln His Lys Val Ser Leu Gln Lys Ser Thr Ala Val Met Leu		
1220	1225	1230
Pro Lys Thr Ser Pro Ala Leu Pro Gln Arg Gln Ser Ser Pro Phe		
1235	1240	1245
His Phe Thr Thr Leu Ser Thr Ser Val Met Gln Ile Pro Ser Asn		
1250	1255	1260
Thr Leu Thr Thr Ala His His Thr Thr Thr Lys Thr His Asn Pro		
1265	1270	1275
Gly Ser Leu Pro Thr Lys Lys Glu Leu Pro Phe Pro Pro Leu Asn		
1280	1285	1290
Pro Met Leu Pro Ser Ile Ile Ser Lys Asp Ser Ser Thr Lys Ser		
1295	1300	1305
Ile Ile Ser Thr Gln Thr Ala Ile Pro Ala Thr Thr Pro Thr Phe		
1310	1315	1320
Pro Ala Ser Val Ile Thr Tyr Glu Thr Gln Thr Glu Arg Ser Arg		
1325	1330	1335
Ala Gln Thr Ile Gln Arg Glu Gln Glu Pro Gln Lys Lys Asn Arg		
1340	1345	1350
Thr Asp Pro Asn Ile Ser Pro Asp Gln Ser Ser Gly Phe Thr Thr		
1355	1360	1365
Pro Thr Ala Met Thr Pro Pro Ala Leu Ala Phe Thr His Ser Pro		
1370	1375	1380
Pro Glu Asn Thr Thr Gly Ile Ser Ser Thr Ile Ser Phe His Ser		
1385	1390	1395
Arg Thr Leu Asn Leu Thr Asp Val Ile Glu Glu Leu Ala Gln Ala		
1400	1405	1410
Ser Thr Gln Thr Leu Lys Ser Thr Ile Ala Ser Glu Thr Thr Leu		
1415	1420	1425
Ser Ser Lys Ser His Gln Ser Thr Thr Thr Arg Lys Ala Ser Leu		
1430	1435	1440
Asp Thr Pro Ile Pro Pro Phe Leu Ser Ser Ser Ala Thr Leu Met		

1445 1450 1455
Pro Val Pro Ile Ser Pro Pro Phe Thr Gln Arg Ala Val Thr Asp
1460 1465 1470
Thr Arg Gly Asp Ser His Phe Arg Leu Met Thr Asn Thr Val Val
1475 1480 1485
Lys Leu His Glu Ser Ser Arg His Asn Leu Gln Met Pro Ser Ser
1490 1495 1500
Gln Leu Glu Pro Leu Thr Ser Ser Thr Ser Asn Leu Leu His Ser
1505 1510 1515
Thr Pro Met Pro Ala Leu Thr Thr Val Lys Ser Gln Asn Ser Lys
1520 1525 1530
Leu Thr Pro Ser Pro Trp Ala Glu Tyr Gln Phe Trp His Lys Pro
1535 1540 1545
Tyr Ser Asp Ile Ala Glu Lys Gly Lys Lys Pro Glu Val Ser Met
1550 1555 1560
Leu Ala Thr Thr Gly Leu Ser Glu Ala Thr Thr Leu Val Ser Asp
1565 1570 1575
Trp Asp Gly Gln Lys Asn Thr Lys Lys Ser Asp Phe Asp Lys Lys
1580 1585 1590
Pro Val Gln Glu Ala Thr Thr Ser Lys Leu Leu Pro Phe Asp Ser
1595 1600 1605
Leu Ser Arg Tyr Ile Phe Glu Lys Pro Arg Ile Val Gly Gly Lys
1610 1615 1620
Ala Ala Ser Phe Thr Ile Pro Ala Asn Ser Asp Ala Phe Leu Pro
1625 1630 1635
Cys Glu Ala Val Gly Asn Pro Leu Pro Thr Ile His Trp Thr Arg
1640 1645 1650
Val Ser Gly Leu Asp Leu Ser Arg Gly Asn Gln Asn Ser Arg Val
1655 1660 1665
Gln Val Leu Pro Asn Gly Thr Leu Ser Ile Gln Arg Val Glu Ile
1670 1675 1680
Gln Asp Arg Gly Gln Tyr Leu Cys Ser Ala Ser Asn Leu Phe Gly
1685 1690 1695
Thr Asp His Leu His Val Thr Leu Ser Val Val Ser Tyr Pro Pro
1700 1705 1710
Arg Ile Leu Glu Arg Arg Thr Lys Glu Ile Thr Val His Ser Gly
1715 1720 1725
Ser Thr Val Glu Leu Lys Cys Arg Ala Glu Gly Arg Pro Ser Pro

1730	1735	1740
Thr Val	Thr Trp Ile Leu Ala	Asn Gln Thr Val Val Ser Glu Ser
1745	1750	1755
Ser Gln	Gly Ser Arg Gln Ala	Val Val Thr Val Asp Gly Thr Leu
1760	1765	1770
Val Leu	His Asn Leu Ser Ile	Tyr Asp Arg Gly Phe Tyr Lys Cys
1775	1780	1785
Val Ala	Ser Asn Pro Gly Gly	Gln Asp Ser Leu Leu Val Lys Ile
1790	1795	1800
Gln Val	Ile Ala Ala Pro Pro	Val Ile Leu Glu Gln Arg Arg Gln
1805	1810	1815
Val Ile	Val Gly Thr Trp Gly	Glu Ser Leu Lys Leu Pro Cys Thr
1820	1825	1830
Ala Lys	Gly Thr Pro Gln Pro	Ser Val Tyr Trp Val Leu Ser Asp
1835	1840	1845
Gly Thr	Glu Val Lys Pro Leu	Gln Phe Thr Asn Ser Lys Leu Phe
1850	1855	1860
Leu Phe	Ser Asn Gly Thr Leu	Tyr Ile Arg Asn Leu Ala Ser Ser
1865	1870	1875
Asp Arg	Gly Thr Tyr Glu Cys	Ile Ala Thr Ser Ser Thr Gly Ser
1880	1885	1890
Glu Arg	Arg Val Val Met Leu	Thr Met Glu Glu Arg Val Thr Ser
1895	1900	1905
Pro Arg	Ile Glu Ala Ala Ser	Gln Lys Arg Thr Glu Val Asn Phe
1910	1915	1920
Gly Asp	Lys Leu Leu Leu Asn	Cys Ser Ala Thr Gly Glu Pro Lys
1925	1930	1935
Pro Gln	Ile Met Trp Arg Leu	Pro Ser Lys Ala Val Val Asp Gln
1940	1945	1950
Gly Ser	Trp Ile His Val Tyr	Pro Asn Gly Ser Leu Phe Ile Gly
1955	1960	1965
Ser Val	Thr Glu Lys Asp Ser	Gly Val Tyr Leu Cys Val Ala Arg
1970	1975	1980
Asn Lys	Met Gly Asp Asp Leu	Ile Leu Met His Val Ser Leu Arg
1985	1990	1995
Leu Lys	Pro Ala Lys Ile Asp	His Lys Gln Tyr Phe Arg Lys Gln
2000	2005	2010
Val Leu	His Gly Lys Asp Phe	Gln Val Asp Cys Lys Ala Ser Gly

2015

2020

2025

Ser Pro Val Pro Glu Ile Ser Trp Ser Leu Pro Asp Gly Thr Met
2030 2035 2040

Ile Asn Asn Ala Met Gln Ala Asp Asp Ser Gly His Arg Thr Arg
2045 2050 2055

Arg Tyr Thr Leu Phe Asn Asn Gly Thr Leu Tyr Phe Asn Lys Val
2060 2065 2070

Gly Val Ala Glu Glu Gly Asp Tyr Thr Cys Tyr Ala Gln Asn Thr
2075 2080 2085

Leu Gly Lys Asp Glu Met Lys Val His Leu Thr Val Ile Thr Ala
2090 2095 2100

Ala Pro Arg Ile Arg Gln Ser Asn Lys Thr Asn Lys Arg Ile Lys
2105 2110 2115

Ala Gly Asp Thr Ala Val Leu Asp Cys Glu Val Thr Gly Asp Pro
2120 2125 2130

Lys Pro Lys Ile Phe Trp Leu Leu Pro Ser Asn Asp Met Ile Ser
2135 2140 2145

Phe Ser Ile Asp Arg Tyr Thr Phe His Ala Asn Gly Ser Leu Thr
2150 2155 2160

Ile Asn Lys Val Lys Leu Leu Asp Ser Gly Glu Tyr Val Cys Val
2165 2170 2175

Ala Arg Asn Pro Ser Gly Asp Asp Thr Lys Met Tyr Lys Leu Asp
2180 2185 2190

Val Val Ser Lys Pro Pro Leu Ile Asn Gly Leu Tyr Thr Asn Arg
2195 2200 2205

Thr Val Ile Lys Ala Thr Ala Val Arg His Ser Lys Lys His Phe
2210 2215 2220

Asp Cys Arg Ala Glu Gly Thr Pro Ser Pro Glu Val Met Trp Ile
2225 2230 2235

Met Pro Asp Asn Ile Phe Leu Thr Ala Pro Tyr Tyr Gly Ser Arg
2240 2245 2250

Ile Thr Val His Lys Asn Gly Thr Leu Glu Ile Arg Asn Val Arg
2255 2260 2265

Leu Ser Asp Ser Ala Asp Phe Ile Cys Val Ala Arg Asn Glu Gly
2270 2275 2280

Gly Glu Ser Val Leu Val Val Gln Leu Glu Val Leu Glu Met Leu
2285 2290 2295

Arg Arg Pro Thr Phe Arg Asn Pro Phe Asn Glu Lys Ile Val Ala

2300	2305	2310
Gln Leu Gly Lys Ser Thr Ala	Leu Asn Cys Ser Val	Asp Gly Asn
2315	2320	2325
Pro Pro Pro Glu Ile Ile Trp	Ile Leu Pro Asn Gly	Thr Arg Phe
2330	2335	2340
Ser Asn Gly Pro Gln Ser Tyr	Gln Tyr Leu Ile Ala	Ser Asn Gly
2345	2350	2355
Ser Phe Ile Ile Ser Lys Thr	Thr Arg Glu Asp Ala	Gly Lys Tyr
2360	2365	2370
Arg Cys Ala Ala Arg Asn Lys	Val Gly Tyr Ile Glu	Lys Leu Val
2375	2380	2385
Ile Leu Glu Ile Gly Gln Lys	Pro Val Ile Leu Thr	Tyr Ala Pro
2390	2395	2400
Gly Thr Val Lys Gly Ile Ser	Gly Glu Ser Leu Ser	Leu His Cys
2405	2410	2415
Val Ser Asp Gly Ile Pro Lys	Pro Asn Ile Lys Trp	Thr Met Pro
2420	2425	2430
Ser Gly Tyr Val Val Asp Arg	Pro Gln Ile Asn Gly	Lys Tyr Ile
2435	2440	2445
Leu His Asp Asn Gly Thr Leu	Val Ile Lys Glu Ala	Thr Ala Tyr
2450	2455	2460
Asp Arg Gly Asn Tyr Ile Cys	Lys Ala Gln Asn Ser	Val Gly His
2465	2470	2475
Thr Leu Ile Thr Val Pro Val	Met Ile Val Ala Tyr	Pro Pro Arg
2480	2485	2490
Ile Thr Asn Arg Pro Pro Arg	Ser Ile Val Thr Arg	Thr Gly Ala
2495	2500	2505
Ala Phe Gln Leu His Cys Val	Ala Leu Gly Val Pro	Lys Pro Glu
2510	2515	2520
Ile Thr Trp Glu Met Pro Asp	His Ser Leu Leu Ser	Thr Ala Ser
2525	2530	2535
Lys Glu Arg Thr His Gly Ser	Glu Gln Leu His Leu	Gln Gly Thr
2540	2545	2550
Leu Val Ile Gln Asn Pro Gln	Thr Ser Asp Ser Gly	Ile Tyr Lys
2555	2560	2565
Cys Thr Ala Lys Asn Pro Leu	Gly Ser Asp Tyr Ala	Ala Thr Tyr
2570	2575	2580
Ile Gln Val		

2585

<210> 15
<211> 236
<212> PRT
<213> Mus musculus

<220>
<221> misc_feature
<222> (1)..(236)
<223> 'x' can be any amino acid

<400> 15

Met Gln Lys Arg Gly Arg Glu Val Ser Cys Leu Leu Ile Ser Leu Thr
1 5 10 15

Ala Ile Cys Leu Val Val Thr Pro Gly Ser Arg Val Cys Pro Arg Arg
20 25 30

Cys Ala Cys Tyr Val Pro Thr Glu Val His Cys Thr Phe Arg Asp Leu
35 40 45

Thr Ser Ile Pro Asp Gly Pro Ala Asn Val Glu Arg Val Asn Leu Gly
50 55 60

Tyr Asn Ser Leu Thr Arg Leu Thr Glu Asn Asp Phe Ser Gly Leu Ser
65 70 75 80

Arg Leu Glu Leu Leu Met Leu His Ser Asn Gly Ile His Arg Val Ser
85 90 95

Asp Lys Thr Phe Ser Gly Leu Gln Ser Leu Gln Val Leu Lys Met Ser
100 105 110

Tyr Asn Lys Val Gln Ile Ile Glu Lys Asp Thr Leu Tyr Gly Leu Arg
115 120 125

Ser Leu Thr Arg Leu His Leu Asp His Asn Asn Ile Glu Phe Ile Asn
130 135 140

Pro Glu Ala Phe Tyr Gly Leu Thr Leu Leu Arg Leu Val His Leu Glu
145 150 155 160

Gly Asn Arg Leu Thr Lys Leu His Pro Asp Thr Phe Val Ser Leu Ser
165 170 175

Tyr Leu Gln Ile Phe Lys Thr Ser Phe Ile Lys Xaa Leu Tyr Leu Tyr
180 185 190

Asp Asn Phe Thr Ser Leu Pro Lys Glu Met Val Ser Ser Met Pro Asn
195 200 205

Leu Glu Ser Leu Tyr Leu His Gly Asn Pro Trp Thr Cys Asp Cys His
210 215 220

Leu Lys Trp Leu Ser Glu Trp Met Gln Gly Asn Pro
225 230 235

<210> 16

<211> 2587

<212> PRT

<213> homo sapiens

<400> 16

Met Lys Val Lys Gly Arg Gly Ile Thr Cys Leu Leu Val Ser Phe Ala
1 5 10 15

Val Ile Cys Leu Val Ala Thr Pro Gly Gly Lys Ala Cys Pro Arg Arg
20 25 30

Cys Ala Cys Tyr Met Pro Thr Glu Val His Cys Thr Phe Arg Tyr Leu
35 40 45

Thr Ser Ile Pro Asp Ser Ile Pro Pro Asn Val Glu Arg Ile Asn Leu
50 55 60

Gly Tyr Asn Ser Leu Val Arg Leu Met Glu Thr Asp Phe Ser Gly Leu
65 70 75 80

Thr Lys Leu Glu Leu Leu Met Leu His Ser Asn Gly Ile His Thr Ile
85 90 95

Pro Asp Lys Thr Phe Ser Asp Leu Gln Ala Leu Gln Val Leu Lys Met
100 105 110

Ser Tyr Asn Lys Val Arg Lys Leu Gln Lys Asp Thr Phe Tyr Gly Leu
115 120 125

Arg Ser Leu Thr Arg Leu His Met Asp His Asn Asn Ile Glu Phe Ile
130 135 140

Asn Pro Glu Val Phe Tyr Gly Leu Asn Phe Leu Arg Leu Val His Leu
145 150 155 160

Glu Gly Asn Gln Leu Thr Lys Leu His Pro Asp Thr Phe Val Ser Leu
165 170 175

Ser Tyr Leu Gln Ile Phe Lys Ile Ser Phe Ile Lys Phe Leu Tyr Leu
180 185 190

Ser Asp Asn Phe Leu Thr Ser Leu Pro Gln Glu Met Val Ser Tyr Met
195 200 205

Pro Asp Leu Asp Ser Leu Tyr Leu His Gly Asn Pro Trp Thr Cys Asp
210 215 220

Cys His Leu Lys Trp Leu Ser Asp Trp Ile Gln Pro Asp Val Ile Lys
225 230 235 240

Cys Lys Lys Asp Arg Ser Pro Ser Ser Ala Gln Gln Cys Pro Leu Cys
245 250 255

Met Asn Pro Arg Thr Ser Lys Gly Lys Pro Leu Ala Met Val Ser Ala
260 265 270

Ala Ala Phe Gln Cys Ala Lys Pro Thr Ile Asp Ser Ser Leu Lys Ser
275 280 285

Lys Ser Leu Thr Ile Leu Glu Asp Ser Ser Ser Ala Phe Ile Ser Pro
290 295 300

Gln Gly Phe Met Ala Pro Phe Gly Ser Leu Thr Leu Asn Met Thr Asp
305 310 315 320

Gln Ser Gly Asn Glu Ala Asn Met Val Cys Ser Ile Gln Lys Pro Ser
325 330 335

Arg Thr Ser Pro Ile Ala Phe Thr Glu Glu Asn Asp Tyr Ile Val Leu
340 345 350

Asn Thr Ser Phe Ser Thr Phe Leu Val Cys Asn Ile Asp Tyr Gly His
355 360 365

Ile Gln Pro Val Trp Gln Ile Leu Ala Leu Tyr Ser Asp Ser Pro Leu
370 375 380

Ile Leu Glu Arg Ser His Leu Leu Ser Glu Thr Pro Gln Leu Tyr Tyr
385 390 395 400

Lys Tyr Lys Gln Val Ala Pro Lys Pro Glu Asp Ile Phe Thr Asn Ile
405 410 415

Glu Ala Asp Leu Arg Ala Asp Pro Ser Trp Leu Met Gln Asp Gln Ile
420 425 430

Ser Leu Gln Leu Asn Arg Thr Ala Thr Thr Phe Ser Thr Leu Gln Ile
435 440 445

Gln Tyr Ser Ser Asp Ala Gln Ile Thr Leu Pro Arg Ala Glu Met Arg
450 455 460

Pro Val Lys His Lys Trp Thr Met Ile Ser Arg Asp Asn Asn Thr Lys
465 470 475 480

Leu Glu His Thr Val Leu Val Gly Gly Thr Val Gly Leu Asn Cys Pro
485 490 495

Gly Gln Gly Asp Pro Thr Pro His Val Asp Trp Leu Leu Ala Asp Gly
500 505 510

Ser Lys Val Arg Ala Pro Tyr Val Ser Glu Asp Gly Arg Ile Leu Ile
515 520 525

Asp Lys Ser Gly Lys Leu Glu Leu Gln Met Ala Asp Ser Phe Asp Thr
530 535 540

Gly Val Tyr His Cys Ile Ser Ser Asn Tyr Asp Asp Ala Asp Ile Leu
545 550 555 560

Thr Tyr Arg Ile Thr Val Val Glu Pro Leu Val Glu Ala Tyr Gln Glu
565 570 575

Asn Gly Ile His His Thr Val Phe Ile Gly Glu Thr Leu Asp Leu Pro
580 585 590

Cys His Ser Thr Gly Ile Pro Asp Ala Ser Ile Ser Trp Val Ile Pro
595 600 605

Gly Asn Asn Val Leu Tyr Gln Ser Ser Arg Asp Lys Lys Val Leu Asn
610 615 620

Asn Gly Thr Leu Arg Ile Leu Gln Val Thr Pro Lys Asp Gln Gly Tyr
625 630 635 640

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Val Pro Ala Gly Ile Ala Arg His Val Glu Arg Ile Asn Leu Gly Phe
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Asn Ser Ile Gln Ala Leu Ser Glu Thr Ser Phe Ala Gly Leu Thr Lys
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Leu Glu Leu Leu Met Ile His Gly Asn Glu Ile Pro Ser Ile Pro Asp
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Gly Ala Leu Arg Asp Leu Ser Ser Leu Gln Val Phe Lys Phe Ser Tyr
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Asn Lys Leu Arg Val Ile Thr Gly Gln Thr Leu Gln Gly Leu Ser Asn
115 120 125

Leu Met Arg Leu His Ile Asp His Asn Lys Ile Glu Phe Ile His Pro
130 135 140

Gln Ala Phe Asn Gly Leu Thr Ser Leu Arg Leu Leu His Leu Glu Gly
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Met Arg Trp Phe Leu Glu Trp Asp Ala Lys Ser Arg Gly Ile Leu Lys
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Cys Lys Lys Asp Lys Ala Tyr Glu Gly Gly Gln Leu Cys Ala Met Cys
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260 265 270

Met Thr Cys Leu Lys Pro Ser Ile Glu Ser Pro Leu Arg Gln Asn Arg
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Glu Pro Glu Thr Asn Val Ala Glu Gly Arg Arg Val Phe Glu Ser Arg
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Asp Ile Leu Ala Lys Val Arg Gly Lys Asn Leu Pro Lys Gly Thr Glu
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Val Thr Pro Pro Phe Pro Ala Val Ser Pro Pro Ser Ala Ser Pro Val
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Ser Thr Pro Leu Glu Glu Val Val Asp Asp Leu Ser Glu Lys Thr Glu
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Glu Ile Thr Ser Thr Glu Gly Asp Leu Lys Gly Thr Ala Ala Pro Thr
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Leu Ile Ser Glu Pro Tyr Glu Pro Ser Pro Thr Leu His Thr Leu Asp
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Thr Val Tyr Glu Lys Pro Thr His Glu Glu Thr Ala Thr Glu Gly Trp
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Glu Pro Pro Leu Asp Ala Val Ser Leu Ala Glu Ser Glu Pro Met Gln
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Tyr Phe Asp Pro Asp Leu Glu Thr Lys Ser Gln Pro Asp Glu Asp Lys
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Met Lys Glu Asp Thr Phe Ala His Leu Thr Pro Thr Pro Thr Ile Trp
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Gln Val Phe Gly Ser Arg Ser Leu Pro Arg Gly Pro Asp Ser Gln
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Pro Arg His Trp Thr Asn Lys Pro Glu Ile Thr Thr Tyr Pro Ser
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Gly Ala Leu Pro Glu Asn Lys Gln Phe Thr Thr Pro Arg Leu Ser
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Ser Thr Thr Ile Pro Leu Pro Leu His Met Ser Lys Pro Ser Ile
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Pro Ser Lys Phe Thr Asp Arg Arg Thr Asp Gln Phe Asn Gly Tyr
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Ser Lys Val Phe Gly Asn Asn Asn Ile Pro Glu Ala Arg Asn Pro
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Val Gly Lys Pro Pro Ser Pro Arg Ile Pro His Tyr Ser Asn Gly
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Arg Leu Pro Phe Phe Thr Asn Lys Thr Leu Ser Phe Pro Gln Leu
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Ile Thr Ser Ser Val Gln Ser Ser Gly Ser Phe His Gln Ser Ser
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Ser Lys Phe Phe Ala Gly Gly Pro Pro Ala Ser Lys Phe Trp Ser
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Leu Gly Glu Lys Pro Gln Ile Leu Thr Lys Ser Pro Gln Thr Val
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Lys Asn Gly Thr Leu Val Ile Arg Lys Val Gln Val Gln Asp Arg
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1940 1945 1950

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Ala Met Glu Cys Leu Ala Lys Gly Thr Pro Ala Pro Gln Ile Ser
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Trp Ile Phe Pro Asp Arg Arg Val Trp Gln Thr Val Ser Pro Val
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Ile Arg Pro Ser Gln Phe Leu His Gly Asn Leu Phe Val Phe Pro
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His Val Asn Val Gln Pro Pro Lys Ile Asn Gly Asn Pro Asn Pro
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Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys Ser Ala Ala Gly
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